

Logan Correctional Center
2nd Court Appointed Expert Report
Lippert v. Godinez

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Overview

From April 23 through April 26, 2018, the Court Expert team visited the Logan Correctional Center (LCC). This report describes our findings and recommendations. During this visit, we:

- Met with leadership of custody and medical
- Toured the medical services area
- Talked with health care staff
- Reviewed health records and other documents
- Interviewed inmates

We thank the Warden and staff for their assistance and cooperation in conducting the review.

LCC is the woman's reception center for the State of Illinois. This facility was opened in 1978. LCC was meant to hold 1,106 individuals but now holds 1806 females and is at 163% of rated capacity. In 2013, Logan became a female-only facility.

Executive Summary

Based on a comparison of findings as identified in the First Court Expert's report, we find that dental care is improved and there were improvements in access to care, but all other areas were either the same or worse than the First Court Expert's findings. Clinical care in all areas of record reviews appeared worse, and in some cases resulted in harm. Medication management was much worse than described in the previous report. Although there is an electronic medical record, it is incompletely implemented. We find that overall, the Logan Correctional Center (LCC) is not providing adequate medical care to patients and there are systemic issues that present ongoing risk of harm to patients and result in preventable morbidity. The deficiencies that form the basis of this opinion are provided below.

The Wexford supervisory nurse is dedicated to business duties related to the Wexford contract instead of being responsive to her role as supervisory nurse. This problem has been ongoing since the First Court Expert's report. The HCUA has too many responsibilities. Her responsibilities include HCUA at LCC, acting Regional Coordinator for the central region, infection control nurse, Continuous Quality Improvement coordinator, and nurse supervisor. LCC has only one supervisory nurse, making nurse supervision ineffective. This is compounded by lack of collaboration between IDOC leadership and Wexford leadership at this site. A physician position has been vacant for so long that it is now filled with a nurse practitioner position and the responsibilities of the Medical Director are such that she completes her notes at home after normal work hours. There have been five doctors at LCC over the past four years. Though there is only a 2% vacancy rate for the 53.15 positions, LCC had the lowest staffing rate per thousand inmates of all the facilities we visited. LCC had 30% less staffing per thousand inmates than NRC, the IDOC male intake facility, even though females require more testing evaluations than males.

Clinic space was inadequate. LCC used to be a medium security male facility and was not built with the intention of serving as the main female intake center and main female facility. As a result, there are inadequate numbers of examination rooms. There is insufficient equipment, including a lack of microscopes for analyzing specimens for yeast and trichomonas infections, a safe and functioning medical vehicle, a functioning colposcope, automated external defibrillators (AED), and physical therapy equipment. The health units were generally clean and well organized. Emergency response bags need to be inventoried and sealed. Negative pressure rooms need to be monitored and logs for this purpose need to be maintained. Safety and sanitation rounds need to include inspection of medical equipment, medical rooms including negative pressure rooms, emergency response bags, and the training of porters. This is not currently part of the sanitation rounds.

Intake evaluations do not include a thorough review of systems. The clinic where intake evaluations occur does not have a microscope, which limits the ability to perform a thorough examination related to vaginal infections. Because of the process of documenting medication administration, it is not clear whether medication ordered in the intake area is actually provided to the patient. Despite having identified these deficiencies, we found that the physician assistant working in this area performed very well. He was thorough and conscientious, and we were impressed with his work.

Access to care had some improvements, but some deficiencies identified by the First Court Expert remained. Many, but not all, patients had timely access to care; there are a high percentage of no shows and refusals to nurse sick call, without effort to determine the reason. Providers do not consistently evaluate patients with medical conditions identified by nurses. Instead, providers treat patients by remote orders without examining the patient. This is inappropriate.

LCC uses an electronic medical record, but this record was only partly implemented and is therefore ineffective in supporting the clinical program. Medication administration is not electronically recorded. Obstetrical records are maintained on paper and not integrated into the electronic record. Problem lists are improperly maintained. Problem lists include symptoms or undiagnosed findings, which are not diagnosed problems. Because of this, there is no official problem list we could identify used with this electronic medical record. There are insufficient computer terminals to log onto the medical record, particularly on the infirmary, and providers have to write their notes in an area where they are not examining the patient. This promotes bad practice. We also noted that the electronic medical record has a feature that transfers week-old vital sign information into a later note. This feature should be disabled, as all clinical encounters need *current* vital signs. The data in the electronic record has not been able to be used in obtaining data for quality improvement purposes. We also note that the electronic

medical record appears to have encouraged cut and pasted notes,¹ which is improper documentation.

Unscheduled nursing evaluations are now tracked on a nursing sick call log. We found that licensed practical nurses (LPN) and registered nurses (RN) were independently managing patient medical conditions when they should have referred to a physician. This included providing medications to patients and evaluating serious medical conditions that needed to be evaluated by a licensed provider.

We found in four of six hospitalized patients that there were delays in diagnosis because of untimely referral for higher level care. Two of these delays were extended (10.5 and 11 months). One likely resulted in dissemination of colon cancer. Four of six hospitalized patients did not have hospital records, so it was not possible to determine what occurred at the hospital.

We found that specialty care fails to protect patients and the current system of obtaining specialty care should be abandoned, based on patient safety concerns. Tracking of specialty consultations is not based on requirements of the IDOC. Referral dates are not tracked unless a consultation is completed. We noted multiple denials of referral, even when physicians did not appear to know how to manage the patient's problem. We noted one patient who appeared to not have rheumatoid arthritis, yet was being treated for several years with high dose steroid for presumed rheumatoid arthritis, medication that was causing harm. When the patient finally went to a rheumatologist, the rheumatologist noted no findings consistent with rheumatoid arthritis and recommended decreasing the steroid medication. This was not done and follow up with the rheumatologist stopped. We noted several other patients who sustained harm as a result of lack of follow up or referral to appropriate specialty care.

We found systemic issues related to pharmacy and medication administration. The medication room was dirty and there were opened yet undated vials of medications as well as expired medication. Medication assistants working in the pharmacy are unlicensed and were only provided on-the-job training, but deliver hundreds of keep-on-person (KOP) medications to patients on a daily basis, often without documenting onto a medication administration record (MAR). Observation of medication administration showed it was unhygienic. Similar to other facilities, nurses pre-pour medications into improperly labeled envelopes and administer medications without simultaneously recording administration. Patients are not positively identified by the nurse prior to administration of the medication. Keep-on-person (KOP) medications are delivered to patients without consistent documentation in the medical record. Some medication administration records (MAR) were absent in 10 of 10 records reviewed and several of these patients had MARs showing that they did not receive ordered medication. MARs are not timely scanned into the EMR. We found other deficiencies, including orders not

¹ Cut and pasted notes in an electronic medical record consist of copying a section or entire record of a prior note and pasting that copied section into a more current evaluation document. Every episode of care should be documented with information obtained during that episode of care.

being transcribed to the MAR, nurses documenting continuation of medication after it had been discontinued, and improper documentation on MARs.

LCC has no budgeted infection control staff. We noted that deficiencies identified on safety and sanitation reports are sometimes not addressed, repeatedly. Inmate porters have not received training and have no evidence of being vaccinated for hepatitis A or B. Negative pressure rooms were not functional on the first day of our visit, suggesting that they are not being routinely monitored. Paper barriers are not in evidence in all examination areas. The washer used to launder infirmery linen still operates with water below acceptable temperature.

Radiology services are timely and there is no backlog. Access to this service is good. Equipment appears to be in compliance with state regulations. We had concerns about the safety of the radiology technician with respect to panorex films, as this unit does not have typical shielding, and we question whether the technician is receiving unnecessary radiation exposure.

The infirmery was clean and organized. The infirmery lacked sufficient electronic devices for entering information into the electronic medical record. This forced some staff to write their notes at a later time or in other locations. The physician wrote some infirmery notes on a routine basis well after hours and in one case over a week after the clinical event. This is inappropriate and will lead to errors. Not all shifts on the infirmery were covered by an RN. Weights are not tracked well at LCC, resulting in delays in initiating diagnostic testing. Patients on the infirmery in need of specialty care often do not receive it. The use of antibiotics appears excessive and not in line with typical standards of care, and appear guided by presumptive diagnoses rather than an accurate diagnosis supported by diagnostic testing. We view this as a lack of ordering appropriate diagnostic testing and referral. We could not consistently find consultation reports for infirmery patients.

Chronic care patients are seen in a separate clinic encounter for each of their chronic illnesses. For primary care this is inefficient, results in duplicative documentation, promotes lack of attention to interactions between various diseases, and drug-drug interactions. Patients should be evaluated for all of their conditions at one time and based on the degree of control of their illness, not on an inflexible schedule. For hepatitis C, viral load testing is not performed in accordance with IDOC hepatitis C guidelines. As with other facilities, LCC does not adhere to contemporary standards of lipid management, immunization, or colorectal cancer screening. Providers lack access, at the point of care, to electronic references. We noted problems in record reviews related to chronic disease management.

There are insufficient providers to provide female specific care. Care of the pregnant females was generally of good quality. Of 11 records of pregnant females, only one had not been timely evaluated. However, we note that pregnancy has such high risk potential that all patients must be timely evaluated. Referral to a high-risk OB center was in place and appeared to function well. Screening Pap smears and mammograms were mostly done, but rates could be improved. We note that Pap smears for HIV infected women do not occur at the recommended frequency. We attribute lower than desired screening rates to insufficient staffing and monitoring.

Microscopy is not used in diagnosis of vaginal infections (trichomonas, yeast, and bacterial vaginosis). Presumably, this is done presumptively, which is not the standard of care.

The dental program has improved marginally since the First Expert Report due to the introduction of the electronic health record. Routine treatment is timely but inadequate, since it is not informed by a comprehensive oral examination (i.e., intraoral x-rays, a periodontal assessment, and a treatment plan). Adequate soft tissue oral cancer examinations are not performed at the reception screening and are not documented at biennial examinations. The failures of the dental program documented in this report place patients at risk of tooth loss by fostering widescale underdiagnosis and under-treatment of caries and periodontal dental disease. The program remains below accepted professional standards and is not minimally adequate.

The quality improvement program has no one who is trained in quality improvement methodology and no one specifically assigned to perform quality improvement work. The Quality Improvement Plan was inadequate. There was a lack of understanding of the difference between outcome and process studies. There was no critical evaluation of data obtained for the program. Mortality reviews did not include critical analysis and failed to identify correctable problems with care.

Findings

Leadership, Staffing, and Custody Functions

Methodology: We interviewed medical and custody leadership, reviewed staffing documents, and other pertinent documents.

First Court Expert Findings

The Director of Nursing (DON) position was vacant, significantly impacting the workload of the Health Care Unit Administrator (HCUA). The HCUA and Medical Director positions were filled with capable persons. The First Court Expert found that there was a strong leadership team in place and the Warden was supportive. The Assistant Warden of Programs was a nurse. The Medical Director was conscientious. There were 62.21 positions, with a 6% vacancy rate. The HCUA was also acting DON and acted as the infection control nurse.

Current Findings

There was no significant change compared to the findings of the First Court Expert. LCC now has a HCUA, Medical Director, and DON. The HCUA has been in her position since the time of the First Court Expert's visit. She is experienced, but similar to the First Court Expert findings, has too many responsibilities. She is the HCUA at LCC, is filling in as the IDOC Central Regional Coordinator, is the LCC Continuous Quality Improvement Coordinator, covers as the infection control nurse at LCC, and also provides some nurse supervision. It is not possible to effectively manage all those responsibilities.

Nursing supervision is inadequate. The Schedule E has no DON position, but recently a DON position was created and has been recently filled. Prior to this position being filled, the Wexford supervisory nurse was the only nurse supervisor. However, the supervisory nurse, according to the HCUA, spends much of her time performing business duties as the Wexford site manager and is not supervising nurses. For this reason, a DON position was created. The Schedule E nursing supervisor positions will apparently continue to perform business duties. The lack of participation in nursing supervision by the Wexford supervisory nurse has increased the work of the HCUA. This is made worse because the HCUA cannot schedule or discipline nurses, who are all Wexford staff. The HCUA told me that whichever nurse is assigned to respond to emergencies (referred to as the desk nurse) is the effective nurse supervisor. This is not effective supervision. The new Wexford DON and nursing supervisor were both ill and not present during our visit; therefore, we were unable to speak with them.

We were impressed by the enthusiasm and dedication to improvement of the HCUA and the direction she has provided to the program. However, her work has not yet been complemented by coordination with Wexford leadership staff. The reasons for this are unclear, but do appear to affect the program. The absence of apparent collaboration between the HCUA at this facility and Wexford management is a lost opportunity in making improvements.

There are two physician positions at LCC, the Medical Director, and a staff physician. The Medical Director has been in her position since May of 2016. The staff physician position has not been filled for some time. Because of the extended length of vacancy, the program has filled the vacant physician position with another nurse practitioner. The failure to fill the physician position with a qualified physician overburdens the Medical Director, who needs to see all infirmity patients and all complicated patients. Nurse practitioners manage all patients with chronic illness. The Medical Director cannot complete her work during daytime hours. In particular, admission and discharge notes for the infirmity have been a problem significant enough to study this issue as a CQI study. The Medical Director will see patients during the day and often completes her notes at night while at home. We found some notes written as late as midnight two days after the patient was apparently evaluated and one note written over a week after the episode of care. This is not a good practice and can lead to errors. The overwhelming clinical burden for the Medical Director also results in less available time to work with the HCUA in improving systemic problems at the facility.

As we will describe in the section of Women's Health later in this report, there are insufficient providers to handle the volume of female specific health needs. This should be addressed.

There has been considerable physician turnover at the LCC. Since 2014, there have been five doctors at LCC. The inability to consistently fill physician positions with qualified physicians has been an ongoing problem at this facility. The failure of Wexford to fill physician positions significantly impacts the program. We do not agree with the substitution of the staff physician with a nurse practitioner. The inability to recruit and retain physicians has resulted in the program reducing its physician coverage.

This facility has all Wexford staff except for the HCUA, who is a state employee. The Schedule E provided prior to our visit is not entirely accurate. The vacant staff physician position has been changed to a nurse practitioner position, and a DON position has been created. Given these changes, there are 53.15 positions in the medical program, of which only one is vacant.² This is a 2% vacancy rate, which is very good. Based on a population of 1806, there are 29.4 staff positions per 1000 inmates, which is the lowest staffing rate of all facilities we visited. NRC, the male intake facility, had 41 staff per 1000 inmates; LCC has 30% less staffing than NRC, even though female intake requires more work because of the additional examinations and testing needed. In our opinion, there are insufficient RN positions. LPNs perform independent evaluations, which they should not be doing. Vital signs are not obtained consistently for all clinical encounters and monitoring of infirmary patients could be more thorough. We do not agree with having a single physician at this facility, and the lack of ability to recruit physicians negatively affects clinical care of patients.

The LCC operational policies were last reviewed on September 15, 2016. However, the actual policies appear dated and are not completely pertinent to the current facility. The receiving screening policy gives no specific direction with respect to how reception screening at LCC is to occur. This policy is a generic policy which does not even list the requirements of testing or evaluations that are required by the Administrative Directives (AD). The medical records policy is still similar to generic IDOC policy with respect to the paper record, even though LCC now has a partial electronic medical record (EMR). The policy does not address down-time procedures for the electronic record, does not address how medication administration records (MARs) are placed into the electronic record or how offsite consultation reports are placed into the electronic record. This is important because, as we learned, medical record documents can be dated in the electronic record based on the date of scanning into the record or based on the date of service. This process should be established by policy so that it is clear to clinical staff when a clinical event occurred.

Clinic Space, Sanitation, and Support Services

Methodology: Accompanied by a Wexford staff assistant, the experts inspected the single-story health care building, which housed the main medical care clinical unit, with medical exams rooms, nurse sick call rooms, one exam room/treatment room, dental clinic, telehealth rooms, x-ray suite, optometry clinic, medication storage room, nurse medication preparation rooms, injectable medication (enoxaparin, insulin, etc.) administration windows, medical records department, infirmary, supply storeroom, health care administrative and clinician offices, and a conference room. Accompanied by the HCUA, we separately visited the housing unit #6, commonly referred to as the Americans with Disability Act (ADA) unit, and inspected patient rooms, showers and toilets, day room, and the physical therapy room. We also toured the clinical space in building X Reception and intake screening unit. We reviewed the Safety and Sanitation reports for the months of July, August, November, December 2017, and February 2018.

² See Appendix A for a staffing table for this facility.

First Court Expert Findings

The First Court Expert found the clinical areas at LCC reasonably clean and well maintained. The First Court Expert raised concerns that the noise level in the medical reception building made it difficult to properly interview and communicate with new admissions during the intake history and evaluations.

Current Findings

- The infirmary beds were all hospital beds in good condition with adjustable heights, heads, and legs. The three crisis room beds were elevated concrete slabs with mattresses.
- The battery powered nurse call devices located in the infirmary patient rooms were functional. The crisis rooms were located in direct line of sight from the infirmary nursing stations and did not have call devices.
- Only one of the infirmary's three negative pressure rooms was adequately functioning. The engineering staff corrected this problem during the site visit. The nursing staff had not noted nor reported this malfunction in their daily log.
- The five exam rooms in the medical building were not sufficient to accommodate the number of anticipated users. There is a Medical Director, four nurse practitioner positions, a part time obstetrician, and two sick call nurses. Each should have an open and fully equipped examination room. Based on the budget there is need for 7.5 examination rooms. It is our opinion that an additional physician is needed. The planned conversion of one nursing office in the outpatient clinic into an additional provider room will still not provide sufficient space for the number of anticipated users.
- The telehealth room used for monthly UIC HIV and hepatitis C care and infrequently scheduled renal specialty consultation, is also utilized by the OB-GYN specialist for obstetrical Doppler ultrasound evaluation and by a contracted general US technician for general ultrasonography exams. The room is clean and modestly, but adequately, sized. The telehealth room schedule is arranged so that there is no competition for this space.
- Most but not all of the medical equipment and devices in the medical building had documentation of annual inspection by biomedical engineering. However, the obstetrical Doppler ultrasound, the capillary blood glucose testing units, one oxygen concentrator, one Gomco suction machine, and one IVAC unit did not have current inspection labels.
- The colposcope has exceeded its functional life span, has broken parts that are not able to be repaired, and needs to be replaced.
- There was only one operational AED at LCC during the time of the site visit. A single AED at a correctional facility with the population and geographic size of LCC is not adequate to enable a timely and effective emergency response.
- The medical vehicle used to move emergency staff throughout the expansive campus needs to be replaced. Its doors were difficult to open.
- The two emergency response bags on the campus (one in the medical vehicle, the other in the outpatient clinic equipment room) were both unsealed.

- Monthly safety and sanitation inspections and reports are being done by the health care team at LCC. The current inspections focus on physical plant issues (toilets, infestations, mold/mildew, etc.) that must be addressed and corrected by the correctional leadership.
- The safety and sanitation reports do not include documentation of the condition, functionality, and certification of clinical equipment or adequacy of clinical space.

The vast majority of the inmate population is housed in multiple residential buildings, each of which are divided into small dormitories. There is a separate reception building (X-building) where all new admissions are housed until intake screening is fully completed. All medical health care for patient-inmates who have completed the intake screening and have been assigned to a sentenced housing unit is provided in the single story medical building that is located in the central area of the LCC campus. This medical unit is approximately 300 to 1000 feet from inmate housing. Inmates who cannot walk are pushed in wheelchairs by inmate workers or transported in a correctional van to the medical building for all of their care needs.

The single floor linear medical building is the hub of the health care delivery services provided at LCC; it is separated into two sections, with the patient-inmate entrance in the middle of the two sections. Ambulatory care services are located in one wing and the other wing houses the infirmary, biohazardous waste room, medication storage and preparation room, injectable and KOP medication delivery area, medical records, health care administration, optometry room, and dental services.

A correctional staff station is situated at the entrance in the medical building. At this security station there is a video monitor that receives live feed from the infirmary rooms. Correctional officers were at this station during the entire four-day visit of the Experts. Officers stated that they also do visual checks of the infirmary rooms at 30-minute intervals, but the experts seldom saw correctional staff in either wing of the medical building. Directly across from the security station was a patient-inmate waiting area with bench seating that could accommodate approximately 15 women.

The ambulatory care wing of the medical building has a centralized nurse station and five private exam rooms, a telehealth room, an equipment storeroom, a phlebotomy room, and two nurse offices. There is a centralized nursing station in the outpatient clinic area with an open counter, two chairs, computer monitors, and supply cabinets. The station was clean and organized.

Two of the exam rooms are used for nurse sick call; one of these rooms is shared with the OB-GYN specialist, who is onsite two to three days per week. The other three exam rooms are used by the physician and three nurse practitioners; one additional nurse practitioner position is vacant. There is an insufficient number of exam rooms. There are 5.5 budgeted providers and two sick call nurses. It is our opinion that an additional physician is needed. The five examination rooms are insufficient to accommodate the 7.5 budgeted staff who have need of an examination room.

Each exam room has an exam table, computer monitor, desk, two chairs, wall mounted oto-ophthalmoscope unit, liquid soap or sanitizer solution, paper hand towels, mounted sharps container, and a supply cabinet. Four of the five exam rooms had a sink with hot and cold water; the chronic care nurse practitioner room had hand sanitizer in the room without a sink. Three of the five exam tables had a paper barrier in place. The oto-ophthalmoscope was fully operational in four of five rooms; the ophthalmoscope head was not functional in one room. The exam tables were in good condition, but a few had unsealed minor tears that made the tables difficult to fully sanitize. Only one sink had a small amount of mineral deposit. Oxygen tanks were stored in the two exam rooms, but the tanks were only stored in safety racks in one of the rooms. The OB-GYN room had a gooseneck lamp and a cryosurgery unit with three cryosurgery/liquid nitrogen tanks; only one of the tanks were secured in a safety rack. Only one of the provider rooms has a functional microscope with slides, cover slips, and normal saline, but the microscope was dusty and appears to be infrequently used. A new nurse practitioner stated that she had not yet been trained to perform vaginal wet mounts³. This same room has disposable gynecology specula with a functional attachable light source and a supply of thin prep solution containers. The physician's exam room had a sealed medication cart that had documented daily inspections noted on a log. The exam rooms were generally clean and adequately organized.

The telehealth room has a chair, an exam table, and a telemonitor with a stethoscope attachment. UIC infectious disease specialists schedule monthly half-day sessions for the management of HIV and hepatitis C patients, and a Wexford contracted nephrologist provides teleconsultation on an infrequent "as needed" basis. LCC's contracted OB-GYN specialist uses this room to perform obstetrical Doppler ultrasonography on a weekly basis. Once a month a contracted ultrasound technician also does general ultrasonography studies in this room. The schedule for the utilization of this room accommodates the part-time needs of these four services. There is no sink or hand sanitizer in this room which should be present as clinical evaluations are performed.

The phlebotomy room is staffed by two phlebotomists who split their time between the reception center and the medical building. The lab room has a phlebotomy chair, a refrigerator, a sink with hot and cold water, soap and paper towels, a sharps box, a centrifuge, and a computer monitor. The refrigerator was empty and the freezer compartment needed to be defrosted. Lab specimens are sent to the UIC laboratory and result turnaround time was reported to be 24-48 hours. The room was clean and organized.

The radiology suite has chest x-ray and plain film units and a mammography machine in a shielded room. A panorex unit is located in an internal corridor that leads into the radiology technician work area. The suite is staffed by a radiology technician on Monday, Wednesday,

³ Typically, female examination rooms in female centers, particularly intake centers, have microscopes in the examination rooms. These are used to examine vaginal specimens to identify yeast and trichomonas infections. A vaginal smear is applied to a microscope slide and examined under the microscope. Alternatives to this are to perform yeast culture or nucleic acid amplification tests (NAAT), which are expensive to perform. When microscopes are unavailable, there is greater propensity to guess regarding diagnoses, which is not appropriate.

and Friday. A contract mammography technician performs mammography studies on Tuesday and Thursday. (Further findings about the radiology services are detailed in the Radiology Services section.)

There were two nurse offices adjacent to the nursing stations. The chronic care nurse occupies one these rooms to arrange chronic care schedules and statistics. The other room was used by two nurses but will soon be converted into a sixth exam room.

An equipment room contained a back board, a tool control rack, and an emergency response bag. There was a log that tracked the tool count on each shift. The emergency response bag was unsealed and contained a very limited amount of medical supplies. It was communicated that this emergency response bag was the backup bag for the medical team. Injectable glucagon and EpiPen in the backup bag were current but will expire within the next few weeks. It is unacceptable to have an unsealed emergency response bag in the medical building. This bag would be of limited use in the case of an emergency at LCC. An automated external defibrillator (AED) used to be stored in this room but the unit was reported to be out for repairs. The only AED and fully stocked emergency response bag for the entire 1,700-bed institution is kept in the medical vehicle that is parked at the back door of the medical building. LCC does not have a crash cart. The institution performs basic CPR, applies the AED, and calls 911 for cardiac arrests. This is an acceptable option for responding to codes/cardiac arrests.

An ambulatory clinic nurse escorted the expert to inspect the medical vehicle, an aging four door Jeep-like vehicle. This vehicle is only used to transport clinical staff to the injured or ill patient-inmate. This vehicle is never used to transport patients. The rusted rear side and the trunk doors were extremely difficult to open. The emergency bag was stocked with supplies and equipment including a stethoscope, oral airways, ambu bag, bandage material, neck braces, glucagon, EpiPen, and a blood glucose monitor. A full oxygen tank, an operational AED, and current AED pads were in different sections of the vehicle. The emergency response bag was not sealed. The emergency response bag, equipment, and supplies were not stored in an organized, easily retrievable way in the vehicle. It was obvious that the bag was not easily accessible. A review of the inspection logs for February and March 2018 (April's log was missing) documented no deficiencies concerning the van's emergency response bag. However, the inspections were not done on 17 (28%) of the 59 days in these months. The unsealed, unchecked emergency response bag may not contain all the supplies, medications, and equipment needed to effectively respond to an emergency. The emergency response bag must be checked and sealed; the emergency equipment must be organized in the vehicle so that it can be readily accessed. The aging vehicle's doors must be repaired, or the vehicle must be replaced.

A single AED at a correctional facility the size of LCC is not adequate to enable a timely and potentially effective emergency response to a patient-inmate or a correctional or medical staff member who has a cardiac arrest. An AED must always be kept in the medical building to be able to expeditiously respond to emergencies in the high-risk infirmary and to the large number of acute and chronic patients being treated in the ambulatory clinic. Additional AEDs should be

placed in various locations on the LCC campus to minimize emergency response times. The HCUA advised the experts that a request has been or will be made for six additional AEDs.

A correctional transportation van was inspected. The van had two rows of seats; all the seats had seat belts. There was room in the first row to accommodate a wheel chair. A patient-inmate in building #6 who has had multiple offsite specialty visits communicated that vans had seat belts that she always used.

A few dated medical and pharmaceutical references were found in exam rooms. Providers stated that *they believe* that there was a way to access UpToDate electronic medical reference via the EMR, but they did not know how to do this. One nurse practitioner communicated that she uses the physician assistant's private purchase access codes to access UpToDate. The physician stated that she uses Google to access clinical information as needed. All medical and nursing staff at LCC should have ready access to current online medical reference systems such as UpToDate.

A two-chair dental suite is situated behind the correctional office station at the entrance to the medical building. (The physical space and the dental equipment will be addressed in the Dental Services section).

Building #6 is a single-floor structure that houses 131 women, many of whom have difficulty with ambulation or require ambulatory assistive devices (cane, crutches, wheel chairs, walkers). The entrance of the building opens into a large common dayroom with tables, chairs, and two flat screen televisions; the security desk is situated in the day room. Patient-inmates sign a sick call list, noting only their names, not their health care concern, when they seek non-urgent care. The list is kept at the security desk, picked up in the evening, and brought to the medical building. Four women were interviewed; they all stated that they are generally seen by a nurse on the next work day after they submit a sick call request. Women are housed in two wings that open into the dayroom in rooms with two, four, and six-bed rooms. Women have keys to their rooms. All the beds are bunk beds; women with disabilities or at risk for fall are assigned to the lower bunk. Each wing has a common shower and toilet area. The showers are handicap accessible with safety grab bars and shower chairs. At least one toilet in each shower/bathroom was wheelchair accessible. There was a large patch of tile missing in one of the bathrooms that would be difficult to adequately sanitize. It was reported to the Expert that a work order had been placed to replace the missing tile. That same bathroom had a section of frayed insulation of undetermined material wrapped around a pipe at about shoulder level height; this was communicated to the facility engineer, who said that he would correct this concern.

The physical therapy (PT) room is located in building #6 at the back of the dayroom. The PT room is moderately sized and is equipped with two exercise bicycles, one treadmill, a set of parallel bars, and two exercise tables. Locating the PT room in building #6 is quite appropriate and enhances access for the physically challenged population who are housed in this building. However, the PT room is sparsely equipped, even obviously underequipped, when compared to the physical therapy units serving the male populations at SCC and DCC. The physical therapist

also goes to the infirmary and building #14 (mental health) to provide physical therapy services as needed.

Because a partial electronic medical record is used, the medical record area consists of a single room used to manage MAR documents and other paper documents such as outside consultant reports. This room connects the dental, optometry, and supply storage areas with health care administrative offices, conference room, and staff locker room/breakroom.

The 15-bed infirmary is located at the opposite end of the medical building from the ambulatory care wing. The nursing station with an adjacent medication/supply/equipment room is located at the beginning of the infirmary corridor. Four patient rooms had two beds per room with a toilet in each two-person room. There were seven single-bed rooms; three of these single person rooms were crisis/negative pressure rooms located directly in front of the nursing station. Relatively new, excellent condition hospital beds with adjustable heights and head and lower extremity sections were in all the single (non-crisis) and two-person rooms. Nurse call devices were mounted on the walls next to each bed in the non-crisis rooms; four were tested and found to be functioning. The infirmary nurse quickly responded to an unannounced activated device. The three crisis/negative pressure rooms had concrete beds with a mattress. There were no nurse call devices in the crisis rooms. All patient rooms in the infirmary were clean, neat, and organized. The negative pressure monitor at the nursing station was turned on and indicated that at least one of the negative pressure units was not operational. Utilizing the tissue paper test used by the infirmary nursing staff, it was identified that two of the negative pressure units were not functioning properly. A review of the April 2018 infirmary logs noted that the negative pressure was not checked regularly but no deficiencies had been documented. The facility's engineer adjusted the control unit and all three negative pressure units were fully operational before the end of the Experts' visit.

A central infirmary nursing station had an open counter, computer monitor, and supply cabinets. An adequately sized medication preparation, medical supply, and equipment room was located immediately behind the nurse station. There were two Gomco suction machines, two IVAC units, and one oxygen concentrator in the storeroom. One Gomco, one IVAC, and the oxygen concentrator did not have current annual inspection labels. A single person shower room that could accommodate a wheelchair was situated near the nursing station. A biohazard room was located on the unit; the room was clean, waste material bagged, and sharps containers locked. It was reported that a biohazard waste vendor removes the material one to two times per week.

Monthly safety and sanitation inspections are being done in the health care areas, dietary, and housing units. The rounds have appropriately identified problems with the maintenance of the physical plant that could have a negative impact on the safety and health of the patient-inmates and the correctional and medical staff. However, these environmental rounds do not inspect or monitor the condition, function, and annual certification of clinical equipment, functionality of the negative pressure rooms, integrity of bed and chair upholstery, completion of medical cart and emergency response bag logs, the training of health care unit porters, and

other health care issues. The safety and sanitation inspection should be expanded to focus more attention on the beds, clinical equipment, and the training of the infirmary and health care unit porters. Alternatively, separate healthcare-specific environmental rounds should be initiated. The findings of environmental rounds and the safety and sanitation inspections should be reported to the Quality Improvement Committee.

In summary, with the exception of the medication room, the medical building was generally clean and organized. The clinical space was generally adequate to address the needs of the LCC patient population with the exception of the five existing exam rooms which are not sufficient to accommodate the facility's 7.5 FTE clinical staff assigned to nurse and provider sick call, specialty care, and chronic care clinic. The facility has an inadequate number of AEDs to provide timely emergency response in the all clinical and housing units on the expansive LCC campus. The medical vehicle is defective and needs to be repaired and/or replaced. All medical equipment did not have evidence of current annual inspection. The emergency response bags were not sealed and not checked on a daily basis. The infirmary negative pressure room logs did not note that two of the negative pressure rooms were not functional and that the monitoring panel at the nurse station was not accurately indicating the lack of adequate negative pressure.

We agree with the recommendations of the First Court Expert. We have additional recommendations found at the end of this report.

Sanitation

Methodology: The medical building, the physical therapy room in building #6, and the reception center in the X-building were inspected. Nurses, infirmary patient-inmates, and inmate porters were interviewed.

First Court Expert Findings

The First Court Expert reported that the infirmary porters were provided with orientation to the health care unit that included proper cleaning and sanitation procedures.

Current Findings

- The clinical areas in the medical building, building #6, and building X's reception center were generally clean. One exception was the medication room. Floor and countertops were dirty. The medication refrigerator was in need of cleaning. The staff food refrigerator was very dirty, with liquid spills and food debris. The room was notably cluttered and disorganized.
- One sink in the outpatient clinic and in the reception center has crusted mineral deposits.
- The shower on one wing of building #6 ADA housing unit had a large section of tile missing from the wall and a frayed insulation sleeve around an accessible water pipe. This deficiency makes it impossible to fully sanitize this area.

- There was no documentation that the three infirmity porters had been fully trained in the duties and risks of working on a health care unit with potential exposure to body fluids or had received hepatitis B vaccination.

Overall, the clinical areas at LCC were clean, organized and well maintained. A few exceptions were noted. One was the medication room used to store pharmaceuticals (see Pharmacy and Medication Administration Section). Another area was the common showers/bathrooms in building #6 had a large patch of missing tile on a wall. Although most sinks were clean, one sink in an exam room in the medical building and another in the reception center were crusted with mineral deposits. The shower wall and the crusted sinks are not able to be properly cleaned and sanitized.

Inmate porters clean, sweep, and sanitize all clinical areas at LCC. Three porters in the infirmity were interviewed. One had been the infirmity porter for a long period of time, the other two were recently assigned to the infirmity. In addition to cleaning the infirmity, they wash patient linens in the non-industrial washer and dryer in the infirmity and occasionally assist nurses with patient transfers in and out of beds/chairs. The experienced porter remembered having received some training in the past; the other two stated that they had only received some on-the-job-training. None were sure if they had been vaccinated against hepatitis B (or A). The EMRs of the three porters were reviewed; we found no evidence that they had received blood borne disease education or formal job duty training. There was no documentation in their medical records that they were immune to hepatitis B (or A) or if they had been vaccinated against hepatitis B (or A). The Wexford staff assistant who is responsible for the training of infirmity porters also was unable to provide documentation that the three porters had been trained or vaccinated.⁴

In summary, the sanitation of the health care units was adequate overall, but we identified problems as noted above.

The First Court Expert made no specific recommendations concerning sanitation. We have recommendations that are found at the end of this report.

Medical Reception

Methodology: To assess medical evaluation of newly arriving inmates, we toured the medical reception area, interviewed health care staff, reviewed IDOC health record forms, and reviewed 10 health records.

First Court Expert Findings

The previous Court Expert found that the medical reception process timely took place following the patient's arrival, but there were opportunities for improvement. The initial nurse intake screen took place in a noisy area that interfered with the nurse's ability to hear the patient.

⁴ Infirmity Patients #5, 6, 7.

Patients arrived without medical transfer information from the jail. There were deficiencies in the quality of patient medical histories, problems with follow-up of medical conditions, and untimely follow up of patients with chronic diseases.

Current Findings

We found that the medical reception process has improved from the First Court Expert's report and we also found areas needing improvement.

Medical reception is performed in the B-Wing of X-building. The room where nurses perform intake screening has been moved from the main medical unit to B-Wing. The room is not optimal. It is small and has no sink, but did have hand sanitizer. The examination room used by the medical provider is larger and has an exam table and sink. The exam table cover is torn, preventing inadequate infection prevention, and should be repaired or replaced. The ophthalmoscope head is missing. The provider reported that he did not have a large blood pressure cuff. There is no microscope for the provider to use to diagnose vaginal infections. Both rooms had gloves, sharps, and biohazardous waste containers.

Medical records show that medical transfer information was sent with the patient and available for nurse and provider review. Medications were usually ordered on the day of arrival, but medication administration records (MARs) do not reflect that medications were received within 24 hours and in some cases, not at all. Nurses ordered intake labs according to protocols that were typically performed within a day or two of arrival. Lab reports were generally available at the time of the physical examination. A concern is that nurses do not consistently perform and document urine pregnancy testing in the medical record, which may lead to missed pregnancy.

A provider performed a physical examination in seven days or less in eight (80%) of 10 records reviewed (range=1-12 days). The provider generally addressed the patient's medical history but did not consistently perform a review of systems (ROS) to assess disease control at the time of arrival. The medical provider performed thorough physical examinations including pelvic exam and Pap smear. The provider tests patients with vaginal discharge for chlamydia and gonorrhea, but did not have a microscope to diagnose patients with other common infections, such as trichomonas, yeast, and bacterial vaginosis, and treated these infections empirically. However, due to problems related to inconsistent transcription of medication orders onto a MAR, nurses did not consistently document administration of medications for treatment of vaginal infections onto a MAR.

The provider developed an appropriate treatment plan for each medical condition and followed up on abnormal labs. Mammograms were ordered and completed in accordance with recommended guidelines. The provider referred patients to the chronic disease program and initial visits usually took place within 30 days. The medical provider initiated the problem list, but did not consistently include all pertinent medical diagnoses, including TB infection. Although there are opportunities for improvement, we were impressed with the physician assistant who performs physical examinations. His medical care is very thorough and conscientious.

Nursing Sick Call

Methodology: We evaluated nursing sick call by reviewing IDOC Administrative Directive Offender Health Care Services, (04.03.103K), Wexford Non-Emergency Health Care Requests and Services (P-103), IDOC Treatment Protocols, and the Logan Offender Handbook. We also interviewed health care leadership, staff, and inmates, inspected areas where sick call is conducted, and reviewed tracking logs and health records.

First Court Expert Findings

The previous Court Expert found that nursing sick call was conducted seven days per week. Inmates accessed sick call by submitting a health services request form that nurses triaged, and then the patient was scheduled to be seen by a nurse. In X-house where segregation, maximum security and reception inmates were housed, nurses conducted sick call cell-side, without privacy or performing an examination, despite there being an examination room where sick call could be performed. Licensed practical nurses (LPNs) performed independent nursing assessments, which is beyond the scope of practice for an LPN in the State of Illinois.

Current Findings

Our review showed some improvements with respect to access to care and confirmed that certain conditions found by the First Court Expert remain. The system does not yet ensure timely access to care.

Sick call is still conducted seven days per week. The process for inmates to access sick call has changed since the previous Expert's report. To access sick call, inmates sign up for sick call on a sheet of paper in the housing unit rather than submitting a written request with the nature of the complaint. The exception is segregation, where the officer maintains control of the sign-up sheet and writes the inmate's name on the sheet. Health care staff pick up the sign-up sheets each evening, but the replacement sign-up sheets are not delivered until the next morning. Therefore, there is an approximately 12-hour gap where inmates are unable to sign up for sick call. The Logan Offender Handbook has not been changed to reflect the new process.

Health care leadership reported that all inmates are supposed to be seen the day after signing up; however, our record review showed that in some cases, inmates were not seen for two days after they signed up. This is a concern because if health care staff cannot see all patients within 24 hours, they need to be able to triage patients according to the urgency of their complaint. However, this is not possible because inmates do not document the nature of the complaint on the sign-up sheet.

We reviewed inmate sign-up sheets and noted that there were missing sign-up sheets each month. For example, according to notes on the stacks of sign-up sheets, there were sign-up sheets missing for 2/21, 2/23, 2/25, 2/26, 2/27, 2/28, 3/1, 2/2, 3/3, and 3/4/18. This is significant because the sign-up sheet is the only documentation that the patient submitted a health request. If sign-up sheets are missing, there is no record that the patient requested care.

Review of available sign-up sheets show that on some days there were very high numbers of no shows or refusals. For example:

- On 1/5/18, 56 inmates signed up for sick call and there were 22 (39%) no shows or refusals;
- On 1/7/18, 62 inmates signed up and there were 35 (56%) no shows or refusals;
- On 1/26/18, 61 inmates signed up and there were 20 (33%) no shows or refusals; and
- On 3/6/18, 46 inmates signed up and there were 19 (41%) no shows or refusals.

These are extremely high no shows/refusal rates; however, these high no show/refusal rates have not been studied under the auspices of the CQI program to determine whether barriers to access to care exist. We interviewed staff and inmates as to why inmates no show for sick call. One reason given is that inmates sign up to meet other inmates for social reasons, and then do not come to sick call. Another reason given is that inmates wait long periods of time for their appointments. Staff and inmate interviews indicate that the sick call nurse responds to emergencies on the compound, and when this occurs, inmates waiting to be seen do not know how long the nurse will be unavailable and therefore return to their housing unit. At least on one occasion, a lockdown was a barrier to care. On 1/8/18, four patients were noted not to be seen due a lockdown. We reviewed each of these records and found that patients were not rescheduled for sick call and were not seen.

The HCUA reported that all inmates are escorted to an examination room to be assessed by a nurse, either in the main medical unit or housing units. However, in X-building where segregated inmates are housed, correctional officers do not escort inmates to a clinic area and nurses still perform cell-front assessments which does not permit an adequate assessment.

We reviewed 26 health requests in 22 records, which included four patients noted above not seen due to a lockdown (15%).⁵ Of the remaining 22 health requests, we found that in 14 (54%) cases patients were seen the next day,⁶ four (15%) patients were seen in two days,⁷ and four (15%) patients were not seen due to no show, refusal, or unknown reason.⁸ Thus, 69% of patients were seen in one to two days, but 31% were not seen due to lockdown, no show or refusal. Two of the patients seen by a nurse in two days were housed in segregation.

At LCC, both RNs and LPNs perform sick call using treatment protocols. In the State of Illinois, LPNs are to practice “under the guidance of a registered professional nurse, or an advanced practice registered nurse, or as directed by a physician assistant, physician...to include “conducting a focused nursing assessment and contributing to the ongoing assessment of the patient performed by the registered professional nurse.” LPNs may also collaborate in the development and modifications of the RN or APRN’s plan of care, implement aspects of the plan of care, participate in health teaching and counseling, and serve as an advocate for the

⁵ Sick Call Patients #5, 6, 7, and 8.

⁶ Sick Call Patients #1, 2, 3, 4, 9, 12, 14 (four separate requests), 15 (two separate requests), 16, and #21.

⁷ Sick Call Patients #11, 19, 20, and 22.

⁸ Sick Call Patients #10, 13, 17 and 18.

patient by communicating and collaborating with other health service personnel.⁹ However, Illinois scope of practice does not permit LPN's to perform assessments independent of a registered professional nurse or higher level professional, as is currently being done at LCC. Neither does the scope of practice permit LPNs to perform independent assessments according to protocols. LPNs do not have requisite education and training, including physical assessment skills needed to perform independent assessments.¹⁰ *Thus, some LCC patients do not receive evaluations by health care staff licensed to perform independent assessments. This increases the risk of harm to patients.*

Record review showed that some patients who require a medical diagnosis are assessed only by a nurse and not medically evaluated by a provider and/or do not receive ordered medical treatment. The following examples are illustrative:

- A 28-year-old presented to a nurse on 1/16/18 for urinary frequency with foul-smelling urine.¹¹ The patient reported a history of urinary tract infections and that the nurse practitioner told her at intake she might have a yeast infection. A urine dipstick was normal. The nurse contacted a provider, who did not examine the patient but ordered Flagyl (which is not used to treat yeast infections). On 1/30/18, a registered nurse saw the patient again for the exact same complaint. The RN notified a provider, who did not see the patient but again ordered Flagyl. This patient did not receive a medical diagnosis for her condition.
- A 48-year-old woman with a history of left eye trauma and artificial eye was seen by an LPN, who noted the patient had swelling of the upper and lower eyelids for the artificial eye.¹² There is no documentation that the LPN contacted a provider, and a provider did not examine the patient. There was an order for topical and oral antibiotics, artificial tears, and referral to an eye doctor. On 1/18/18, an optometrist saw the patient and ordered another five days of oral antibiotics. There is no January 2018 medication administration record (MAR) in the record to show the patient received the medications. A provider has not seen the patient for follow-up for her eye infection.
- A 42-year-old woman signed up for sick call on 1/14/18 and a LPN saw her on 1/16/18. The patient complained of a herpes infection. The LPN did not perform an examination but called a provider, who ordered acyclovir. The medication order was not transcribed onto a medication administration record and there is no documentation the patient received the medication.¹³

⁹ Illinois LPN Scope of Practice. Section 55-30.

¹⁰ NCCHC defines Qualified Health Care Professionals to include nurses without distinguishing between registered and licensed practical nurses. However, RN and LPN practice must remain within their education, training and scope of practice for their respective state.

¹¹ Nursing Sick Call Patient #15.

¹² Nursing Sick Call Patient #12.

¹³ Nursing Sick Call Patient #11.

- A 54-year-old woman signed up for sick call on 1/20/18, but not seen due to No Show. On 1/25/18, a nurse saw the patient, who stated that on 1/20/18 she fell on her left wrist and heard a “pop.” It hurt to move her fingers and wrist. The nurse noted swelling to her wrist and hand. The nurse contacted a nurse practitioner, who did not see the patient but ordered ice, an Ace wrap and x-ray that was performed on 1/31/18 and showed no fracture. The patient had no follow-up for her wrist.¹⁴
- A 36-year-old woman signed up for sick call on 2/19/18 and a registered nurse saw the patient on 2/21/18. The patient complained of herpes simplex and the nurse contacted a provider, who did not see the patient but ordered acyclovir. There is no February 2018 MAR that shows whether the patient received the medication.¹⁵

These cases show a pattern of patients not being examined by a medical provider to establish a medical diagnosis or see the patient for follow-up to determine whether the patient’s condition had improved. Several records show that there is no documentation that ordered medications were received.

In summary, while many patients have timely access to a nurse, not all patients are seen the following day, and there are a high percentage of no shows and refusals. In addition, patients requiring a medical diagnosis are not timely seen by a medical provider. Instead, providers treat patients remotely and do not schedule patients for follow up to assess whether their conditions have improved. This is a particular concern in light of the lack of documentation that patients receive ordered medications.

Medical Records

Methodology: We reviewed multiple medical records and interviewed staff.

First Court Expert Findings

The First Court Expert had no findings with respect to medical records. The First Court Expert did have three recommendations. The first was that medical records staff should track receipt of all outside reports and ensure that they are filed timely in the health record. The second recommendation was that charts should be thinned regularly, and MARs filed timely. The third was that problem lists should be kept up to date.

Current Findings

This facility partially implemented the Pearl® EMR in 2014. The electronic record is an improvement, but the partial implementation of the record has created other problems and makes the electronic record ineffective in supporting the clinical program.

¹⁴ Nursing Sick Call Patient #13.

¹⁵ Nursing Sick Call Patient #19.

The electronic medication administration component has not been implemented. As a result, medication administration records are on paper. The First Court Expert's second recommendation that charts be regularly thinned is no longer pertinent. Many reports of outside consultants are still unavailable in the medical record. This is not a problem of the electronic record but is related to effort of Wexford management in obtaining these reports. The First Court Expert's recommendation to keep problem lists up to date has not been effectively addressed.

The EMR has interfaces with the pharmacy and with the laboratory vendor. Doctors write prescription orders electronically and these are received by BosWell, the pharmacy used by Wexford. These orders appear in the record. The current list of medications appears in progress notes. Laboratory results can be reviewed electronically and can be viewed in a flow sheet format. The same is not true of problems. Although problems can be entered into the database, these are not updated. Also, the list of problems includes items that are symptoms or undiagnosed findings, which are not problems. For example, "weakness" can be listed as a problem. Problems are medical diagnoses and weakness is not a diagnosis. Progress notes, including for chronic illness visits, do not include updated problem lists. It is not clear whether the software lacks this ability or whether it is not used. Also, the previously used paper problem list is no longer in use. Therefore, there is no official problem list that we could identify. Regardless, the electronic record system fails to include one of the major advantages of electronic records, which is to track all of a patient's problems and make those available to clinical staff when they evaluate patients. Because the problem list in the EMR is not maintained accurately, it is unusable for purposes of tracking or monitoring care. Clinicians do not use problem lists when evaluating patients even though a patient's problems can presumably be entered as data elements in the electronic record. Policy should guide who is to enter problems into the problem list and when they are to be entered and updated.

Because the problem lists are ineffective, the list of patients with chronic illness is not obtained from the electronic record. Instead, patients in chronic illness clinics have their chronic illness information manually entered into a security database. This security database is used by the chronic illness nurse to track chronic illness. This is duplicative, risks loss of data by manual entry operations, fails to make the patient's updated problems readily available, and potentially exposes health information to custody personnel. The electronic record should be utilized to track chronic illness.

There are insufficient devices, specifically terminals for use of the record, in some clinical areas, particularly on the infirmary. The providers go to their office to write their records. A device survey needs to be done to ensure that there are sufficient devices for the number of simultaneous users. The electronic record also includes a feature which is dangerous. This record defaults vital signs to the last vital signs obtained. If a patient has vital signs performed on January 1, 2018 and is evaluated on January 5, 2018, the vital signs from January 1, 2018 will present on the January 5, 2018 note unless new vital signs are obtained. Vital signs should be used only for the date and time for which they were obtained.

Remarkably, the program has been unable to obtain data out of the medical record to support the quality improvement effort. Visits, problems lists, laboratory data, and prescription data are all present in the database of the electronic record. Yet, the program does not have the ability to use these data in ways to measure performance. Implementation of an electronic record reduces the need for medical record clerks. Four to five staff are still assigned to medical records and involved with a variety of health information duties including offsite scheduling, obtaining hospital and specialty consultation reports, and providing court ordered records and release of information requests. However, to make the record effective, the program needs to have information technology staff capable of using appropriate data queries of the electronic record in order to obtain useful information on an ongoing basis for the purpose of measuring quality and for tracking clinical data.

We noted extreme difficulty in obtaining information regarding patient immunization. One of the advantages of an electronic record is to present immunization status so that preventive measures can be easily taken. It was not clear whether this feature is unavailable or unused in the current system. Nevertheless, it was easier for us to find immunization status in the paper record at other IDOC facilities than it was in the electronic record at LCC.

The electronic record is only used at the female facilities and is only partially implemented. Yet IDOC administrative directives do not address the electronic record or give guidance on its use or what to do in the event of outages. Adequate policy needs to be developed to guide use of this product.

Lastly, we note that the electronic record makes it easier to cut sections of a progress note from a prior note and copy the cut piece to another note as a way to produce a note without much writing. The problem is that every note must represent exactly the evaluation during the episode of care being documented. When cut and pasted notes are used, it appears that the doctor is using documentation from a prior episode of care to describe a current episode of care. This is inaccurate and unprofessional documentation. We noted cut and pasted notes for some patients on the infirmary that made it impossible to determine if they were an accurate representation of the patient's actual condition at the time of evaluation. We strongly recommend against cut and pasted notes, as they appear inaccurate and appear to misrepresent the actual condition of the patient.

Urgent/Emergent Care

Methodology: We reviewed records of four patients who nurses evaluated for urgent care complaints. We also reviewed six patients who were hospitalized to assess whether the hospitalizations may have been preventable with timelier or improved primary care.

First Court Expert Findings

The First Court Expert found that there was no log to track urgent calls from housing units or to track patient send outs on an emergency basis.

Current Findings

We found that nurses now track unscheduled evaluations on the nurse sick call log. We found that LPNs and RNs independently managed patients with urgent medical symptoms and did not notify a medical provider, increasing risk of harm to patients. LPNs exceed their scope of practice by performing independent nursing assessments. Even when notified, medical providers did not examine and evaluate patients with potentially serious medication conditions. The following cases are illustrative.

- A 51-year-old woman with a history of asthma, hypertension, and chronic hepatitis C infection was a code 3 on 1/22/18.¹⁶ The patient reported burning in the center of her chest radiating to her throat and vomiting x 1. The chest pain protocol instructed the nurse to call the provider urgently for patients with a history of hypertension. The LPN did not refer the patient to a provider but instead ordered Pepcid. On 2/17/18, an LPN responded to a code 3. The patient was found sitting on the floor stating that she was dizzy. The nurse did not perform any cardiovascular review of systems (e.g., chest pain, SOB). The patient's vital signs were normal. The LPN determined that the patient should rest in her cell and did not contact a provider. On 2/19/18, an LPN responded to a code 3. The patient reported chest pain and dizziness. Again, the nurse performed no cardiovascular review of systems. Vital signs were normal. The patient's last EKG showed nonspecific T-wave abnormality. The LPN did not contact a provider. These LPNs independently managed this patient with dizziness and chest pain, which is well beyond their scope of practice. We discussed this case with the HCUA.
- This 53-year-old woman had a history of six hospitalizations for asthma as well as diabetes, hypertension, hyperlipidemia, and hypothyroidism.¹⁷ On 12/6/17, the patient presented to the HCU stating, "I need a breathing treatment." A LPN evaluated the patient whose vital signs were blood pressure 140/90mm Hg and pulse=90/minute. The nurse did not ask about the frequency of symptoms. The patient had right lower lobe wheezing. The LPN did not measure peak flow expiratory rates (PEFR) or oxygen saturation. Apparently the LPN administered a nebulizer treatment and documented "no wheezing after treatment." On 12/9/17, a RN assessed the patient for shortness of breath. The patient told the nurse, "At home I use steroid, here I am not on one." The patient's PEFR's showed her asthma was poorly controlled (Before treatment PEFR=150/200/225). The patient had scattered faint wheezing throughout posterior bases. The treatment protocol indicates provider referral "if peak flow less than 300 does not improve with Albuterol." However, the nurse did not measure PEFR's after treatment and did not contact a physician for steroid inhaler or referral back to chronic disease program. On 12/10/17, the patient presented again with SOB. The nurse did not measure vital signs or PEFR. The oxygen saturation was 95% with wheezing upon expiration. It is unclear from the note if the nurse treated and if so, there was no post treatment assessment. On 12/19/17, a physician saw the patient and added prednisone,

¹⁶ Urgent/Emergent Patient #3.

¹⁷ Urgent/Emergent Patient #4.

inhaled steroid and Xopenex. On 1/22/18, an LPN assessed the patient as a code 3 with SOB. "I am having trouble breathing." The patient had wheezing auscultated in all lobes with oxygen saturation of 95%. No vital signs or PEFr were obtained. The LPN gave the patient a breathing treatment and did not assess the patient afterwards, documenting that the patient was to return to the clinic as needed. On 1/25/18, the patient presented with a two-week history of a cold. The temperature was 99.5°F and blood pressure was 158/100mm Hg. On 1/30/18, the NP saw the patient for chronic disease management; patient noting that she used her steroid inhaler (Alvesco) three to four times, and that the patient's asthma was in fair control. The NP scheduled her for follow up in six months. In this case, both LPNs and RNs performed inadequate assessments of a patient with asthma and exceeded their scope of practice by independently treating the patient and/or not timely referring the patient to a provider. The NP did not schedule the patient for follow-up in accordance with her disease control.

- A 45-year-old woman with a history of hypertension presented with chest pain on 1/3/18.¹⁸ An LPN saw the patient, whose vital signs were normal. The LPN performed an EKG that was read by a nurse practitioner, who did not examine the patient or medically evaluate the patient. On 2/6/18, the physician saw the patient and addressed her hypertension and chest pain. This was not timely care.
- A 23-year-old woman was seen by an LPN on Wednesday, 12/20/17 for sore throat, body aches, and nasal congestion.¹⁹ The patient had a fever of 101.4°F with no other vital signs measured. The patient's throat was red with enlarged lymph nodes. The LPN planned to refer the patient to a provider but a medical provider did not examine the patient. An OB/GYN wrote an order for azithromycin the same day. It is unclear whether and when the patient received the medication. On Saturday 12/23/17, the patient presented urgently with sore throat and inability to swallow. A RN saw the patient and noted a swollen soft palate that was deviated to the left. The patient was unable to speak or able to swallow. The temperature was 100.5° F, the pulse was 125/minute, and the blood pressure was 130/83. A registered nurse contacted a NP, who ordered the patient sent to the hospital, where the patient underwent incision and drainage of a peritonsillar abscess. On 12/23/17, the patient was sent back to the facility on Augmentin and admitted to the infirmary for 24-hour observation. On 12/25/17, the physician reviewed the note from the hospital, but did not see the patient until 1/13/18, three weeks after she was hospitalized. A provider should have examined the patient on 12/20/17 and timely seen the patient following hospitalization.

In the six hospital records we evaluated, we noted delayed diagnosis in four of the six patients. These delays included:

- A three-month delay in evaluation of pancreatic cancer
- A 10.5-month delay in treatment of a sigmoid-vaginal fistula

¹⁸ Urgent/Emergent Patient #2.

¹⁹ Urgent/Emergent Patient #1.

- A two-day delay in hospitalization for a life-threatening drug overdose
- An 11-month delay in identification of colon cancer which likely resulted in dissemination of the cancer.

In four of six hospitalizations there were incomplete or no hospital records. The delays in treatment include systemic deficiencies, including:

- Failure to obtain records from transferring jails related to diagnoses of the patient and failure to act on information obtained in transfer documents
- Failure to timely obtain diagnostic studies for serious illness
- Failure to establish an appropriate and timely treatment plan for abnormal findings
- Failure to appropriately assess or act on laboratory findings.

We note some of these problems in cases below. We also note that several of these cases are discussed in the section on specialty care below.

- The first patient was incarcerated at LCC on 1/11/17.²⁰ The patient had a prior positive tuberculosis skin test and therefore received a screening chest x-ray. This x-ray showed a 6 mm nodule with streaking from the nodule and a small pleural effusion. The radiologist recommended obtaining a CT scan, as this was suspicious for cancer. A PA consulted a doctor, who told the PA instead of obtaining a CT scan to obtain a repeat chest x-ray in three months. This was not appropriate care as the nodule was suspicious for cancer. In three months, a repeat chest x-ray was done and showed a large right pleural effusion with a large consolidation on the right lung. The effusion was compressing the lung. The radiologist again recommended a CT scan. This patient should have been admitted to a hospital for diagnosis and evaluation of the large pleural effusion. Instead of admitting the patient to a hospital for a diagnosis, the doctor admitted the patient to the infirmary and ordered routine blood tests, antibiotics, presumably for pneumonia, and another chest x-ray. The radiologist had recommended a CT scan on the second x-ray report, but this was not done.

Within four days of being on the infirmary the patient was short of breath, had unilateral leg edema, and was wheezing. The unilateral leg edema was suggestive of a deep vein thrombosis. This in combination with a large lung consolidation and pleural effusion, should have prompted immediate hospitalization to evaluate for pulmonary embolism and to perform thoracentesis for diagnosis of the pleural effusion. Instead, the doctor initiated treatment for deep vein thrombosis (Lovenox), treated for presumptive pneumonia, and ordered an urgent Doppler test and routine CT scan of the chest. This was dangerous for the patient, as the doctor did not have a diagnosis for a potentially life-threatening condition. Three days later, the urgent Doppler test had not yet been done and the doctor ordered another chest x-ray, which was unchanged. This resulted in the doctor finally admitting the patient to a hospital.

²⁰ Patient #1 Hospitalization and Specialty Care.

The patient had deep vein thrombosis, pulmonary embolism, adenocarcinoma of unknown primary, and disseminated cancer to pleura and peritoneum. The patient received the first cycle of palliative chemotherapy with a recommendation for follow-up chemotherapy. It was somewhat difficult to follow the course of care, as the doctor was writing notes not on the date of evaluation but at home from memory. The doctor was also using cut and pasted notes, which created an impression of identical notes being repeated, which may or may not have represented the actual condition of the patient or evaluation of the provider. The doctor at LCC also did not prescribe pain medication consistent with recommendations of the oncologist. Based on equivalency dosing, the patient was receiving less pain medication than recommended by the oncologist.

In summary, this patient's cancer diagnosis was delayed by about five months. It may not have made a significant difference in ultimate outcome. However, the patient did have a life-threatening presentation (pleural effusion, leg swelling, shortness of breath, and wheezing) and was not admitted to a hospital for four days. This placed the patient at significant risk of harm and is inconsistent with generally accepted guidelines for a pleural effusion.

- Another patient was a 43-year-old woman who had a history of HTN, COPD, and prior gastric surgery in the past for unstated reasons.²¹ The intake history and physical examination on 7/5/17 failed to identify the reason for the gastric surgery. Intake laboratory results showed anemia and low white blood count. There was no follow up of these significant abnormal laboratory results.

The patient had a mental health condition and within a month of incarceration, a mental health staff member documented that the patient was not eating. The patient then began complaining about her stomach hurting and not wanting to eat because of this problem.

On 8/16/17, the patient was admitted to the infirmary by mental health for "failure to thrive, R/O medical vs. psychosis." Initial laboratory results showed pancytopenia.²² The white count was low, and the absolute neutrophil count was 492, which is severe neutropenia and a critical level. The laboratory tests also showed a critical value of valproic acid at 154 (normal 50-100). This drug was being used to manage the patient's mental health conditions. The elevated valproic acid can be associated with pancytopenia. Valproic acid toxicity is also known to result in central nervous system dysfunction, low blood pressure, and liver dysfunction. The patient was not eating or drinking fluid and a doctor ordered intravenous fluid, but the intravenous line was not working well, and the IV fluid was not flowing. A doctor examined the patient on 8/17/17, and the patient had hypotension (94/81), which was unnoticed by the doctor.

²¹ Patient #2 Hospital and Specialty Care.

²² Pancytopenia is a low level of white blood cells, red blood cells and platelets. This is a serious problem that typically in all cases requires prompt referral to a hematologist for consideration of a bone marrow biopsy.

Hypotension can be caused by valproic acid toxicity and should have resulted in hospitalization, as it was unsafe to keep a patient with critical, severe neutropenia and hypotension on an infirmary unit. The patient was nevertheless kept on the infirmary for two days despite the critical valproic acid level and pancytopenia. The patient eventually began vomiting and developed altered mental status. She was lethargic, unable to answer questions, and was speaking unintelligibly. The patient was eventually sent to a hospital on 8/19/17, several days after critical blood pressure and pancytopenia in the context of valproic acid toxicity were identified. There was no hospital report and it was not clear what occurred at the hospital. Partial records documented elevated ammonia, pancytopenia, encephalopathy, and valproic acid toxicity as initial problems. There was no discharge summary, so the discharge plan was not available.

On return to LCC, a repeat blood count showed persistent pancytopenia. A doctor noted that because the absolute neutrophil count was 1.2 the patient was “stable.” Pancytopenia is a serious condition, and because the etiology of the pancytopenia was uncertain, the patient should have been referred to a hematologist. There was no documentation of why the patient was hospitalized or what occurred in the hospital. The doctor did not address the pancytopenia in her assessment or plan. The weight was not monitored. There was not a plan for the patient’s weight loss or pancytopenia.

The LCC Medical Director discharged the patient from the infirmary (when the doctor was at home) at midnight without documenting the discharge diagnosis from the hospital and without documenting a discharge plan to evaluate the pancytopenia. The discharge date was 8/31/17, but the note was written on 9/7/17. The doctor’s note at midnight appeared to be a cut and pasted note taken from a prior mental health note. The only diagnosis was schizoaffective disorder. This is unacceptable documentation and care.

The patient had two subsequent blood counts, the latest of which was on 10/2/17. This test continued to show low white count, anemia, and absolute neutrophils of 760, which is moderate neutropenia. This continued problem in light of correction of the valproic acid toxicity warranted hematology consultation, but it was not addressed. The doctor noted that the patient was “stable” and could “come to sick call if problem.” This was indifferent to the patient’s serious medical condition. Low white count with anemia can reflect a serious problem including cancers, immune disorders, or other serious conditions.

- Another patient transferred from Cook County Jail with information that the patient had a pending appointment with colorectal surgery.²³ The intake history failed to identify why the patient had a pending colorectal surgery appointment. The patient gave a history of significant weight loss, but the weight loss was not included in the intake problem list and there was no diagnostic effort to evaluate for weight loss. This weight

²³ Patient #3 Hospital and Specialty Care.

loss could be verified because the patient had a prior incarceration in the IDOC, and in prior IDOC notes weighed 245 pound in 2014; the weight on admission on 5/18/16 was 189. The failure to address a verified 56-pound weight loss was unacceptable.

About three weeks later, on 6/6/16, a nurse practitioner took a history that the patient had prior tumors identified during a cystoscopy performed earlier that year. The patient also gave a history of a prior colonoscopy in December of 2015. The nurse practitioner did request old records, which showed that the patient had a CT scan in December of 2015 showing a posterior bladder wall mass of 3.4 cm. The patient was sent to an urologist and eventually that patient had a cystoscopy on 8/23/16, two months after intake. This procedure was normal.

In the meantime, on 7/8/16, the patient began complaining of stool coming out of her vagina. A doctor evaluated the patient on 7/25/16 and wrote that she would "consider" a CT scan. Lacking the prior CT scan, a new diagnostic study should have been done, as the patient had considerable weight loss, history of an abdominal mass, and stool coming out of her vagina. Instead, the doctor waited for the cystoscopy. This procedure was done on 8/23/16, but there was no report. There was also no report of a follow-up visit on 9/7/16 to the urologist except the urologist wrote on the referral form, "no malignancy in bladder... F/U prn [recommend] gyne eval."

A doctor saw the patient on 9/7/16 and obtained a history that the patient had stool coming out of her vagina for three months. On 9/15/16, a doctor referred the patient to a gynecologist, who saw the patient on 9/23/16 and recommended an ultrasound to rule out a recto-vaginal fistula. The ultrasound was done 10/3/16 and the radiologist recommended a CT scan. The CT scan was done on 10/25/16 and showed a suspected fistula between the sigmoid colon and the vagina. A doctor referred the patient to a colorectal surgeon on 11/3/16. Notably, when the patient transferred from Cook County Jail, the patient had a pending appointment to colo-rectal surgery which was ignored. The colorectal surgeon saw the patient on 11/28/16, but again there was no report in the medical record. The surgeon recommended an MRI and surgical exploration. On 12/12/16, the MRI was done, but there was no report. The patient had a colonoscopy on 12/30/16, but there was no report and it was not clear what happened. The patient went to colorectal surgery on 1/19/17 for follow up, but again there was no report. This patient eventually obtained surgery to repair a sigmoid colon-vaginal fistula on 3/28/17, but the failure to take an adequate history at intake regarding weight loss and to address the pending colorectal surgery appointment at the Cook County Jail resulted in a 10-month delay in treatment of the patient. The failure to obtain consultation reports impaired the ability of the providers to understand the status of the patient.

Specialty Consultations

Methodology: We reviewed specialty care tracking logs, interviewed the scheduling clerk and performed record reviews of persons who received specialty care.

First Court Expert Findings

The First Court Expert found that when patients return from scheduled consultations, they are not brought to the health care unit. Review of paperwork, including recommendations, and scheduling of follow-up visits did not consistently occur, resulting in failed follow up. Also, the process of offsite scheduling begins with the collegial review, and the referral date by the clinician is not tracked. Record reviews showed that consultation reports were unavailable in the medical record. In a review of records, the First Court Expert found that in three of five records there was no follow up of the consultation by the primary care provider. Also, the First Court Expert reviewed care of 13 patients referred by an outside attorney. Of these 13 patients, six (46%) consisted of delayed or denied necessary specialty care.

Current Findings

Specialty care referrals are initiated via the electronic record. The scheduling clerk collects the referrals electronically on the Tuesday before collegial reviews from an inbox in the electronic record. The supporting data is obtained by the clerk and emailed to the Wexford UM reviewers. The referral is placed on the tracking log only when the referral is approved by the utilization reviewer. Referrals need to be placed into the medical record whether they are approved or not.

Review of specialty care continues to be difficult.²⁴ We examined the first month of specialty referrals for 2017. There were 62 referrals for care. Collegial reviews occurred within five days for 60 (97%) of referrals. However, we noted in a separate review of multiple consultations for a single patient that referrals in seven of eight consultations occurred close to a day before the approval, even when it appeared that the actual referral²⁵ occurred weeks before the approval indicating that the log is not accurately maintained. Fifty-five of these 62 (92%) referrals occurred within a month of the referral. The log used by the scheduling clerk and presented to us for our investigation does not contain all specialty referrals. In our interview with the scheduling clerk, we were told that only completed consultations are maintained on this log. Denials are not placed on the log. Though we were told that there are five or less denials in a year, there were 31 denials provided to us over an eight-month period or approximately 46 denials pro-rated over the past year.

We evaluated a series of consultations in the medical record of one patient to assess whether medical care was timely and appropriate.

²⁴ It has been very difficult to investigate this area of service. We asked for the tracking log as used by the scheduling clerk at the site in a spreadsheet format to include the name, Illinois Department of Corrections number, date of referral for specialty care, date of collegial review, date of approval, date of service, and the service referred for. We again did not receive what we asked for. We were sent a PDF file which could not be sorted. There were 39 pages of appointments not in chronologic order for any of the items. This made it very difficult to use. After receiving this list, we asked again for the spreadsheet used by the scheduling clerks at the site. I received an email on April 20, 2018 that the Wexford site team used the PDF file for tracking and did not use a spreadsheet. This PDF was too disorganized to effectively use. Once at the site, we discovered that the site did use a spreadsheet and asked for and received this document before we left. This delayed our ability to review this process.

²⁵ When a consultant recommends a follow up or specialized test, we view that recommendation as a date of referral. Many consultant recommendations do not appear to be evaluated timely and thus their new referrals for care may not be addressed for weeks. LCC apparently uses the collegial review episodes to coordinate referrals rather than the physician review of offsite consultation. This makes care appear more timely than it actually is.

- We examined a patient who had multiple consultations.²⁶ This patient had multiple sclerosis (MS). We examined eight of his consultations on the tracking log from 12/1/15 to 1/18/18, and three consultations occurring before the tracking log started. There were two denials for referrals to neurologists in late 2014 (8/14/14 and 12/29/14). The alternative treatment plan recommended was “conservative” therapy without any explanation of what this might be for someone with MS. The doctor appeared unsure of how to manage the patient. These denials prevented neurology consultation for MS, which is generally accepted medical care.

Of the eight consultations on the tracking log, there were only five consultation reports in the medical record. One of the reports was filed two months late. Six of eight referrals were timely based on the tracking log. However, one referral was to UIC with a recommendation for a four month follow up. This never occurred; instead the patient was sent to a local neurologist, even though the local neurologist recommended that the patient see a neurologist at a major medical center. Two of the eight referrals were late. One was one month late and the second was five months late. Two of the eight visits were for MRI tests. In neither was there documented evidence that a doctor had reviewed the results. For two of the six neurology consultations there was no evidence that a provider reviewed the consultation findings with the patient or reviewed what occurred at the consult. After another consultation visit, the findings were not reviewed for about six weeks after the consultation. After another consultation, a doctor saw the patient but did not document review or understanding of what occurred at the neurology consultation. After only two of the eight consultations was there evidence of understanding of what occurred at the consultations. Referrals were documented on the log on average about three weeks after the actual consultation was referred by the consultant or LCC provider. The actual log documents six of eight approvals as occurring the day following the referral, making it appear that the tracking log is maintained based on collegial review events rather than based on the clinical referral itself.

Doctors at LCC did not document understanding of what occurred at neurology visits or understanding of the MRI results. This lack of understanding of what occurred at the consultations was important because the patient’s chronic condition was not being monitored well in chronic clinics. This patient was being followed in chronic clinic every six months, but providers were not consistently seeing the patient after neurology consultations or documenting understanding of the consultant’s findings and recommendations. The providers did not perform adequate history or assessment of the patient’s MS. Providers inconsistently documented the therapeutic plan of the neurologist and did not independently perform adequate assessments. Because it did not appear that physicians at LCC knew how to manage this disease, the patient needed to be followed by a neurologist. Indeed, physicians at LCC attempted to refer to neurologists on four occasions because the patient was not getting better on prescribed care. Yet, on four occasions when LCC physicians wanted to refer to a neurologist, the

²⁶ Patient #4 Hospital and Specialty Care.

Wexford utilization physician denied their referral. On two occasions the UM physician asked that the LCC physicians use “conservative” management without advising what this meant for this complex disease. On two other occasions, a neurologist wanted the patient to be sent to a tertiary care neurologist for management. These requests were also denied. These denials were not all tracked on the tracking log. The facility HCUA had to intervene to get the Agency Medical Director to overrule this UM decision.

When the patient was sent to the neurologist at the major medical center (UIC), the consultation took eight months to occur. The neurologist at UIC could only perform a limited examination because correctional officers kept the patient in restraints during the evaluation. The neurologist had no information available. MRI tests and ophthalmology reports, requested to be sent, were not sent with the patient. The neurologist stated that the patient might need a second line disease modifying agent. The consultant recommended an MRI, different disease modifying agents, and a follow up in four months, but this follow up never occurred and the patient was sent back to the local neurologist. This specialized consultation was ineffective due to lack of information and inability of the neurologist to perform an adequate examination.

The ineffective and inconsistent monitoring of the patient at the facility was compounded by an unprofessional attitude of one of the physicians. After the UIC neurology consultation, the LCC doctor believed that the patient was faking and failed to undertake the recommendations of the UIC neurologist. The LCC doctor wrote, “In my opinion voluntarily exhibits purposeful resistance to exam for secondary gain I see no neurological finding.”

This patient appeared to deteriorate clinically over four years and had inconsistent neurology management. There were four denials of care when doctors at LCC deemed the level of care to be beyond their expertise. Wexford utilization physicians denied care without providing LCC physicians appropriate alternative therapeutic plans. A cynical and unprofessional attitude by one of the LCC physicians appeared indifferent to the patient’s real and inconsistently treated disease.

We noted multiple episodes of care, which based on contemporary standards of care, should have resulted in diagnostic testing or consultations, which were not referred. In at least two cases, harm resulted to the patient. It is our opinion that this aversion to timely and appropriate referral is related to the utilization process. We had an opportunity to observe a “collegial review” process at LCC. The “collegial review” took only about five minutes and consisted of the utilization doctor reciting the offsite referrals and giving approval or asking for more information. There was little “collegial” discussion about the cases. This process appears to be an approval meeting as opposed to a collegial discussion about cases. Staff told us that this “collegial review” typically only takes a few minutes to conduct. Collegial review is a misnomer, as there is no meaningful collegial discussion of cases. It is an approval process and, in our opinion, does not contribute to patient safety. We continue to believe that this process should be abandoned to protect patient safety. In our limited chart reviews, we identified four

denials²⁷ in a single patient for necessary care for multiple sclerosis without any documented collegial discussion of alternative plans, a delayed diagnosis of colon cancer that likely resulted in unnecessary spread of the colon cancer,²⁸ failure to send a patient²⁹ with necrotic foot lesions to a podiatrist or to thoroughly evaluate for osteomyelitis, failure to evaluate a diabetic patient³⁰ with a draining ulcer over the tibia for MRI, bone biopsy, or infectious disease consultation to evaluate for osteomyelitis, and a failure to obtain pulmonary function testing in a patient³¹ with COPD.

- Another patient was 50 years old.³² Earlier in her incarceration, on 8/15/13, she weighed 250 pounds. On 12/1/16, the patient complained at an annual health evaluation of abdominal pain and bloody stool. The only diagnostic screening that was done was a rectal examination noting a guaiac negative stool.³³ The patient should have had a colonoscopy on the basis of symptoms and age.

Subsequent blood counts showed that the patient had anemia. When a doctor saw the patient and took a history of bloody diarrhea for three months, the doctor ordered metronidazole, apparently treating the patient for colitis on a presumptive basis. The doctor failed to notice the weight loss. Also, bloody diarrhea warrants a CT scan of the abdomen and colonoscopy, which were not done.

More than a month later, on 2/27/17, the doctor noted continued diarrhea and the stool was positive for blood. This warranted colonoscopy. But the doctor diagnosed hemorrhoids and prescribed hemorrhoidal cream. While the patient may have had hemorrhoids, the more serious potential diagnosis (colon cancer) should have been excluded with a colonoscopy. This was not done. The patient was not seen for over four months, when a different doctor saw the patient for an annual physical examination. The doctor performed a rectal examination but did not test stool for blood. The patient now weighed 215 pounds (35-pound weight loss) and the weight loss was noted by the doctor who wrote, "hemorrhoids, historically is a long-term problem without any red flags to indicate a more significant condition." This statement was grossly and flagrantly unacceptable. A 50-year-old person with 35-pound weight loss and blood per rectum with anemia needs to have a colonoscopy and possibly a CT scan of the abdomen. Instead nothing was done. The patient had red flags unrecognized by this physician.

Two months later, the patient continued to lose weight and weighed 204 pounds. The patient had abdominal pain with blood in her stool. The doctor diagnosed non-specific pain and took no action. This also was grossly and flagrantly unacceptable practice.

²⁷ Patient #4 Hospitalization and Specialty Care as discussed above.

²⁸ Patient #5 Hospitalization and Specialty Care as discussed below.

²⁹ Patient #6 Hospitalization and Specialty Care as discussed below.

³⁰ Patient #7 Hospitalization and Specialty Care.

³¹ Patient #8 Hospitalization and Specialty Care as discussed below.

³² Patient #5 Hospitalization and Specialty Care.

³³ Digital rectal examination even with guaiac testing will miss 90% of colon cancers. A colonoscopy was indicated.

On 9/20/17, a nurse practitioner noted ongoing abdominal pain for the past seven months. The nurse practitioner ordered a pelvic ultrasound and blood count. A colonoscopy or abdominal CT scan were indicated, not a pelvic ultrasound.

On 9/26/17, the Medical Director saw the patient, who was complaining of abdominal pain, nausea, vomiting, and diarrhea. The patient had 48-pound weight loss. The doctor ordered blood tests and a plain abdominal x-ray, which is not a useful test when evaluating anemia, weight loss, and bloody stool. It appeared that there was either ignorance of an appropriate work-up or a reluctance to refer appropriately. We asked the Medical Director what she would do for someone in her private practice for colorectal cancer screening and she indicated that she would typically order colonoscopy. She had no answer to why this was not being done at LCC. This patient should have had prompt colonoscopy, but it was not done. Presumably the utilization process is a barrier to adequate care.

The ultrasound was done 9/29/17 and only showed stool. A pelvic ultrasound is not an appropriate diagnostic test to exclude colon cancer. Finally, on 10/7/17, the Medical Director ordered a CT scan of the abdomen. On 10/16/17, the CT scan showed a large circumferential thickening of the sigmoid and descending colon consistent with cancer. MRI and colonoscopy were recommended. On 11/10/17, a colonoscopy showed a large ulcerated rectosigmoid lesion suspicious for cancer. The scope could not be passed beyond the mass. The patient was referred to an oncologist and had surgery on 11/28/17, where stage IV disseminated colon cancer was diagnosed. The patient saw the oncologist on 12/28/17.

This patient had an 11-month delay in diagnosing colon cancer, likely resulting in unnecessary dissemination of the disease, which harmed the patient. The patient had symptoms consistent with colon cancer (weight loss, blood per rectum, abdominal pain, and anemia) on 12/1/16, yet did not have a colonoscopy until 11/10/17. Providers saw the patient seven times during that time interval and presumed a more innocent diagnosis, even though the patient's symptoms and findings were consistent with colon cancer.

- Another patient with diabetes, asthma, deep vein thrombosis, and hypertension was incarcerated at LCC on 8/10/17.³⁴ An intake nurse noted that the patient had recent surgery on her leg for an infection. The wound was open and draining. The intake physician assistant documented that the patient had repeated episodes of deep vein thrombosis and required life-long anticoagulation.

At a subsequent evaluation, a doctor noted that the patient had the leg wound for over two years and was told she had a bone infection by staff at Stroger Hospital in Chicago.

³⁴ Patient #7 Hospitalization and Specialty Care.

Osteomyelitis generally requires intravenous antibiotics. The prior record from Stroger Hospital was not obtained. An initial sedimentation rate was slightly elevated at 27 (nl < 20) and an x-ray of the leg was normal. This patient should have had osteomyelitis excluded unless prior records demonstrated that the patient was adequately treated.

Over the course of eight months the patient continued to have drainage from an ulcer on her tibia. This indicated that the osteomyelitis was likely still present. A draining ulcer over a bone in a person with diabetes must include exclusion of osteomyelitis. This did not occur for this patient. The patient was treated with multiple different antibiotics simultaneously, including, for example, Bactrim, Levaquin, metronidazole, and fluconazole. Fluconazole is an antifungal therapy. We could not determine for what reason this drug was being used. Treatment of osteomyelitis is typically intravenous antibiotics for an extended period. There was not a reasonable effort to evaluate for osteomyelitis.

The patient was hospitalized in late December of 2017 for a MRSA cellulitis of the leg, but the hospital record was unavailable, and it was unclear if the patient received evaluation for osteomyelitis. The patient continues to have drainage from the leg ulcer with brawny skin changes. The patient has never had a thorough evaluation (MRI of the leg, CRP, bone biopsy) for osteomyelitis. A doctor referred the patient to an infectious disease doctor, but this referral was denied. The alternate treatment plan was to perform another wound culture, which was unlikely to be useful in the contaminated wound. The patient needed MRI, bone biopsy, ankle brachial index, and CRP.

- Another patient was transferred to LCC from Jackson County Jail on 1/6/17 with a history of mitral valve heart disease.³⁵ The patient had a prior history of clusters of blisters on her feet during a prior incarceration in 2015. The patient experienced episodes of what sounded like a fugue state. A doctor saw the patient on 2/15/17 for an episode of “temporary amnesia.” Without taking an adequate history and performing a neurological examination, the doctor documented the patient as “neuro normal,” diagnosed epilepsy, and enrolled the patient in seizure clinic and started Depakote, an anti-epileptic drug. A nurse practitioner changed the Depakote to Keppra, another anti-epileptic drug, at a later date. The patient remains on anti-epileptic drugs without ever having a witnessed seizure and without having had an EEG, or CT scan. The latter tests are typically required diagnostic studies for all new onset seizures. In this case, there was little evidence that the patient had a seizure and no diagnostic evaluations to diagnose this condition. The patient should have been sent to a neurologist, as the facility providers did not appear to know how to evaluate a new onset seizure disorder and the patient may not have epilepsy.

In addition, this patient again developed blisters on her feet on 1/11/18. Initially, a doctor ordered Diflucan, an antifungal agent, and metronidazole by phone order,

³⁵ Patient #9 Hospitalization and Specialty Care.

without evaluation. The blisters worsened and eventually on 2/8/18 a doctor diagnosed “foot rot” between the toes. Vinegar soaks, metronidazole, Keflex, and fluconazole were ordered. None of these antibiotics or antifungal agents is typically used for initial treatment of skin and soft tissue infections which, in a prison, need to cover for MRSA.

A doctor continued to treat the patient with multiple antibiotics and Diflucan, an anti-fungal agent, for over three months. During our tour we evaluated the patient, who had necrotic black tissue covering the webs between all the toes of her foot. We were told that the HCUA pressured the Medical Director to obtain an infectious disease consultation, which is scheduled for 5/1/18. The providers have not debrided the necrotic tissue, which needs to be removed until healthy tissue is present. The depth of the ulcerations on the feet has not been determined. If, after debridement, the wound probes to bone, then evaluation for osteomyelitis needs to be initiated. The patient should be treated with antibiotics appropriate for the type of infection and we agree with the infectious disease consultation, which should have been initiated earlier in the course of the infection and was only initiated at the urging of the HCUA.

- Another patient was a 49-year-old with a history of diabetes, hypertension, prior deep vein thrombosis, and presumed rheumatoid arthritis with long-term oral steroid use to treat her presumed rheumatoid arthritis.³⁶ This patient was incarcerated at LCC prior to initiation of the EMR and her old record volume was inaccessible and could not be reviewed. The patient had apparently been evaluated by a Wexford telemedicine rheumatologist, although there were no documented notes of these encounters in the medical record. The first documented chronic clinic visit was on 5/23/14, and the doctor noted that the patient had been on prednisone for years and had not seen a rheumatologist since 2008. It was unclear when the patient was incarcerated. The patient was on 20 mg of prednisone a day, which is an extremely atypical therapy and is not currently recommended.³⁷ On 9/15/14, a doctor on the infirmary documented that the Wexford rheumatologist recommended decreasing the prednisone dose from 20 mg to 15 mg. This is still an exceedingly high dosage, likely to cause adverse effects.

On 5/14/15, the patient was finally referred to a rheumatologist. The rheumatologist noted that the patient had no evidence for synovitis, yet had diabetes and Cushingoid presentation. This was likely from excessive prednisone use. The rheumatologist recommended stopping the non-steroidal medication and tapering the patient off prednisone. The rheumatologist recommended blood tests to monitor the use of methotrexate. The patient returned to the rheumatologist once more on 10/9/15. This was two months later than recommended. The rheumatologist noted that the facility physician had increased the dose of prednisone and again noted that there was no

³⁶ Patient #6 Hospitalization and Specialty Care.

³⁷ While short courses of oral steroids are used for rheumatoid arthritis, long-term steroid use is not recommended. Use of disease-modifying anti-rheumatic drugs (DMARDs) are recommended. Use of glucocorticoids are recommended only as adjunct therapy. Chronic use of steroids can cause increased risk of adverse events including osteoporosis, fractures, gastrointestinal bleeding, diabetes, infections, cataracts, and impaired adrenal function.

synovitis.³⁸ Synovitis is a key feature of rheumatoid arthritis and not having synovitis suggested that the patient might not have rheumatoid arthritis. The patient was still on the non-steroidal medication and the rheumatologist recommended again to stop the non-steroidal medication and to decrease the prednisone dose to 10 mg. The rheumatologist recommended a six month follow up, with an accurate list of the patient's medications. There were no further rheumatology visits.

The patient was not referred back to a rheumatologist and yet was continued on relatively high doses of prednisone, contrary to recommendations of the rheumatologist. On 3/1/17, a nurse practitioner saw the patient in general medicine chronic clinic for her rheumatoid arthritis. The nurse practitioner referred the patient to a rheumatologist but sent the request via the Medical Director. This referral was never made by the Medical Director. The Medical Director subsequently obtained x-rays of the hands and ordered a sedimentation rate. The x-rays showed no evidence for rheumatoid arthritis, and the sedimentation rate was normal. There were no erosions and no evidence for rheumatoid arthritis. Thus, the patient had no evidence of rheumatoid arthritis, as the patient had no evidence of inflammatory arthritis of any joint and no residual bony defects (erosions) consistent with rheumatoid arthritis. Also, a rheumatologist previously stated that the patient had no evidence of synovitis in any joint.

Nevertheless, LCC physicians failed to refer this patient to a rheumatologist and continued to treat the patient as if she had rheumatoid arthritis, with prednisone, methotrexate, and eventually hydroxychloroquine, all of which had significant potential adverse reactions. The Federal Drug Administration has assigned multiple black box warnings³⁹ for methotrexate and describes a multitude of adverse actions related to prednisone. Hydroxychloroquine also has multiple potential adverse actions, especially retinal toxicity that can result in irreversible retinopathy. While it was unlikely that the patient had rheumatoid arthritis, the patient was experiencing multiple adverse consequences of the treatment for presumed rheumatoid arthritis including diabetes, elevated high triglycerides, and fatty liver; all consequences of prolonged high dose prednisone use. The fatty liver was unrecognized as a problem. The elevated triglycerides were initially treated with fenofibrate, which is not a first or second-line therapy for elevated triglycerides. This drug should be used with caution in persons with liver disease, but the fatty liver was unrecognized by the facility providers. Fenofibrate was started apparently in December of 2016 and was eventually stopped in April of 2017. The diabetes, likely caused by the unwarranted use of prednisone, caused additional problems.

³⁸ This suggested that the patient had no active manifestations of rheumatoid arthritis and probably did not have rheumatoid arthritis.

³⁹ According to the FDA, a black box warning is a warning designated to call attention to serious or life-threatening risks that can cause disability, be potentially life-threatening, and can result in hospitalization or death. As found at <https://www.fda.gov/downloads/forconsumers/consumerupdates/ucm107976.pdf>.

The patient also had diabetes with HbA1C levels demonstrating poor control as of April of 2018 (HbA1C 8.3). The poorly controlled diabetes likely caused the fatty liver and elevated triglycerides, which are a risk factor for heart disease. The patient also developed a diabetic foot ulcer, first noticed on 11/30/15. The diabetic foot ulcer was improperly treated, as the patient was allowed and even encouraged to walk on the foot, when recommended therapy is to not have the patient walk on the affected foot. The patient did have an evaluation for vascular insufficiency (ankle-brachial index) but did not have an evaluation for osteomyelitis despite having the ulcer for at least 15 months. We stopped review of this record in April of 2017 and were unsure whether the ulcer was present after this. A diabetic foot ulcer for 15 months needs evaluation for osteomyelitis, which was not done.

This patient appears to be treated with multiple drugs for a condition it does not appear that the patient has. If the patient has seronegative rheumatoid arthritis, there certainly does not appear to be any adverse outcome (joint disease or erosions). Given that, this patient should not be treated with high dose prednisone for years. The prednisone is causing harm to the patient. The harm being caused is likely to cascade and cause other problems. This patient needs to be evaluated by a rheumatologist to determine if indeed the patient has rheumatoid arthritis, which appears unlikely, as there is no evidence for this disease. If the patient still has a foot ulcer, the patient needs evaluation for osteomyelitis.

- Another patient is a 72-year-old woman who had a 10-year risk of heart disease or stroke of 29% and should have been on a moderate-intensity statin, but was on a low-intensity statin.⁴⁰ The patient had hypertension and an LDL cholesterol of 179, but instead of placing the patient on a moderate to high-intensity statin, the doctor added cholestyramine, a second line cholesterol medication, to a low-intensity statin dose. Later, the patient was also treated with fish oil, a marginal anti-lipid drug. The patient was never placed on standard treatment for her lipid disease. The patient had a diagnosis of chronic obstructive lung disease (COPD), but was monitored as if she had asthma. The First Court Expert made a recommendation that IDOC develop a guideline for COPD as opposed to asthma, but this has not been done. In this patient's case, monitoring in chronic clinic was for asthma but the patient had COPD. There was no evidence of the patient ever having a pulmonary function test, which is the cornerstone of diagnosis for COPD. Every patient with COPD should have a pulmonary function test, but this test is seldom done in IDOC for patients with COPD.

Pharmacy and Medication Administration

Methodology: We conducted a comprehensive review of pharmacy and medication services from the time a medication order is written until medication is delivered to the patient. We met with health care leadership and staff involved in pharmacy and medication services, toured

⁴⁰ Patient #8 Hospitalization and Specialty Care.

pharmacy and medication administration areas, observed medication administration, and reviewed medication administration records.

First Court Expert Findings

The First Court Expert Report did not include findings or recommendations related to pharmacy practices or medication administration. The review did not appear to include a review of medication administration records.

Current Findings

This review showed systemic issues related to pharmacy and medication administration systems.

BosWell Pharmacy Services provides medication services at LCC through a “fax and fill” process. Providers enter medication orders directly into the EMR and the order is electronically transmitted to an offsite pharmacy. BosWell dispenses and ships prescriptions six days per week (not on Sundays). Medications are either patient-specific or for stock supply. When new medications arrive, medication assistants check medications received against a packing list of what was shipped.

The medication room is of adequate size for its purpose. The floors and countertops were dirty. The refrigerator used to store staff food was unlabeled (i.e., staff food) and filthy. The medication refrigerator required cleaning. We found an injectable medication that expired in January 2018 and two open insulin vials that were not labeled with the date of opening and expiration dates. In a nearby cabinet we also found two opened Lidocaine vials that were not labeled with the date of opening or expiration. A random check of sharps and controlled medications showed that counts were accurate.

According to the HCUA, the area is staffed by unlicensed and uncertified medication room assistants, not licensed pharmacy technicians or nurses. There is no formal training curriculum and staff are provided on-the-job (OJT) training. This raises safety concerns, as these staff deliver hundreds of KOP medications to patients on a daily basis. A major concern is that medication assistants deliver medications to patients and do not consistently document administration on the MAR. This is further described below.

Nurses administer medications to general population inmates in the chow hall, which is a centralized location near the medical building. Nurses prepare medications by transferring medications from pharmacy-dispensed, properly labeled containers into small white envelopes that do not contain the same information as on the blister-pack label. Nurses then place medication envelopes into small transport containers and carry them to the chow hall. Nurses do not bring MARs with them to document medication administration at the time medications are given.

We observed three nurses administer medications in the chow hall. Inmates arrived based upon work or housing status. Nurses stood behind a metal rail and inmates approached a nurse

based upon last name. Although inmates had identification badges, nurses did not positively identify each patient by looking at the badge or having the patient state her name and a second identifier (e.g., inmate number or DOB). Nurses did not use medication cups to administer medications. Instead, nurses took the medication envelopes and poured the medication into the patient's hand. One nurse was observed to touch an inmate's hands in multiple instances to steady it as she poured the medication. This was unhygienic and neither this nurse nor the other two nurses were observed to use hand sanitizer during any time in the course of administering medications. One nurse got Milk of Magnesia on her hands and wiped her hand on her pants.

As noted above, nurses did not bring MARs with them and did not document administration of medications at the time they were administered. This increases the risk of error in documenting medications.

In segregation, the nurse prepared medications in the same manner as in general population and did not bring MARs with her. We observed this nurse make a medication error by giving medication to the wrong patient. We interviewed the nurse, who reported that as she came into segregation, an officer was escorting an inmate back to the unit who was due for medication (Patient X). As this took place, another inmate approached her to receive her medication (Patient Y). The nurse did not positively identify the patient and stated that she was thinking of Patient X and retrieved and poured her medications into the hand of Patient Y. Patient Y stated, "These are not my medications," and gave them back to the nurse, who then gave Patient Y her scheduled medications. It is unclear what the nurse did with Patient X's medications, as they had already been poured into another patient's hand. This was a "near miss" medication error, in that the nurse gave the patient the wrong medication and it was only because of the patient's refusal that the medication error was not committed. It is clear that in both general population and segregation nurses do not positively identify patients prior to administering medications. These findings were discussed with the HCUA during the site visit.

Medication Administration Records

As noted above, review of MARs showed lack of documentation that patients received KOP chronic disease and other medications, sometimes for several months. Our interview with the HCUA revealed that medication room assistants deliver KOP medications to patients without consistently documenting administration onto the MAR. Instead, medication assistants note on the BosWell pharmacy inventory list that the medication was given to the patient; however, this is not part of the medical record. Therefore, in multiple records there is no documentation that the patient received ordered chronic disease and other essential medications. In addition, in many records previous months' MARs had not been scanned into the record, including July and August 2017 MARs.

For example, in 10 of 10 health records reviewed to assess the medical reception process, all records were missing some MARs, including January and February 2018. In addition, several patient MAR's showed that they did not receive chronic disease medications, sometimes for months. In addition, there were other documentation errors. The following cases are examples:

- An HIV patient who arrived in 10/18/17.⁴¹ That patient's December 2017 MAR showed that she did not receive HIV medications. There was no January 2018 MAR in the record.
- A patient with hypertension and hyperlipidemia arrived on 1/5/18.⁴² There is no documentation on her January and February 2018 MAR that she received Norvasc, metoprolol, and gemfibrozil. In addition, on 2/5/18, the medication order for her chronic disease medications expired and was not renewed until 2/20/18. As of 4/23/18, there was no March 2018 MAR scanned into the record.
- A patient with glaucoma and hypertension arrived on 11/21/17.⁴³ A November 2017 MAR does not show the patient received her chronic disease medications. On 12/7/17, a new order was written for glaucoma medication (Latanoprost), but there is no documentation that the patient received the medication in December 2017.
- A patient with hypothyroidism and hypertension arrived on 2/2/18.⁴⁴ On 2/3/18, a provider ordered the patient's medications. Her February 2018 MAR does not show that the patient received levothyroxine or Lisinopril. As of 4/23/18, there was no March 2018 MAR scanned into the record.
- A patient with a history of hypertension and two heart attacks arrived on 2/27/18.⁴⁵ She was taking the blood-thinner Plavix, metoprolol, isosorbide dinitrate, and atorvastatin. There is no February 2018 MAR to show that the patient received her medication. A March 2018 MAR shows that on 3/1/18 she received isosorbide dinitrate and on 3/3/18 she received her other chronic disease medications. In addition, although the patient was given metoprolol via KOP on 3/3/18, a nurse documented giving the patient the medication on 3/4/18 and 3/5/18 via nurse administration. Another nurse wrote on the MAR that the patient received the medication via KOP and not dose by dose, after which nurses stopped documenting they were giving her the medication daily.
- A patient with hypertension and mental health disorder arrived on 10/17/17.⁴⁶ A provider ordered her medications on 10/18/17. On 10/30/17, chronic disease medications were received. The November 2017 MAR does not show the patient received hydrochlorothiazide. The patient's January 2018 MAR does not show that the patient received hydrochlorothiazide and amlodipine. As of 4/23/18, a March 2018 MAR had not been scanned into the record.

⁴¹ Medical Reception Patient #1.

⁴² Medical Reception Patient #3.

⁴³ Medical Reception Patient #4.

⁴⁴ Medical Reception Patient #6.

⁴⁵ Medical Reception Patient #7.

⁴⁶ Medical Reception Patient #9.

- Another patient with diabetes and hypertension arrived on 7/19/17.⁴⁷ There is no July or August 2017 MAR scanned into the record. The patient's September 2017 MAR shows the patient did not receive glipizide or Lisinopril. The January 2018 MAR shows the patient did not receive any chronic disease medications, except inhalers.

We also found that not all medication orders were transcribed onto a MAR; therefore, except for the original order, there was no documentation that the patient was due to receive or had received the medication.

We found blank spaces indicating that nurses did not document the status (administered, refused, etc.) of medication administration for that dose, including for patients taking insulin. We found medication errors, in that nurses continued administering medications after a provider discontinued the order.

Review of MARs also shows inconsistency with how nurses document discontinuation of previous orders and new medication orders. When providers change or discontinue medication orders, standards of nursing practice are for nurses to draw a line on the date of discontinuation and write "Discontinued" or "D/C" after the line. If there is a new order for the medication, it should be transcribed onto a separate line on the MAR with new start and stop dates. However, we found that in some cases, nurses overwrite dates of a previous medication order with the date of the new order. This defaces the MAR, making the dates of the previous medication order illegible. It also increases the risk of medication error, as the provider may have changed the dose or frequency of administration of the medication, and not simply renewed the order.

In summary, our review showed systemic issues with medication administration that failed to ensure that the right patient received the right medication, at the right dose, by the right route at the right time. These issues included administration of KOP medications by unlicensed and untrained staff, failure to document administration of medications onto MARs, failure to timely scan MARs into the EMR, failure of nurses to document administration of medications at the time of administration, failure of nurses to document each scheduled dose of medication, and failure to properly discontinue and transcribe new medication orders.

Infection Control

Methodology: We inspected the clinical areas in the medical building, building #6's physical therapy room and patient common showers/bathrooms, and the #15/X-building's reception center. We interviewed nursing personnel, HCUA, facility engineer, Wexford staff assistant, and infirmary porters. We reviewed the safety and sanitation reports for the months of July, August, November, December 2017, and February 2018.

First Court Expert Findings

⁴⁷ Medical Reception Patient #10.

Our findings are consistent with the First Court Expert's findings. There is not a budgeted infection control position and infection control duties have not been formally assigned, although individual health care staff may perform duties such as completing public health forms for reportable diseases. The First Court Expert raised significant concerns about the water temperature in the infirmary's non-industrial washer. The expert noted that the health care unit laundry machines did not reach the required minimum temperature of 140 degrees with bleach or 160 degrees without bleach, and thus could not adequately sanitize infirmary linens. He noted that the infirmary porters are provided orientation to the health care unit which includes proper cleaning and sanitation procedures, blood-borne pathogen training, and communicable disease training.

Current Findings

We agree with the findings of the First Court Expert's report. In addition, we identified additional findings and confirmed some of the findings of the First Court Expert's findings as follows:

- Regular safety and sanitation inspections and reports are being done by the health care team at LCC.
- A number of the safety and sanitation deficiencies in the physical plant at LCC that have been reported, some repeatedly, since July 2017, including mold/mildew on ceilings and walls, failure to change ice machine filters, missing cold and hot water showers knobs, sinks that do not drain, infestations, and non-functional toilets in the housing areas. These problems constitute patient and staff safety, and infection control risks for patient-inmates and correctional and medical staff.
- There is no one formally assigned at LCC to the tasks of infection control.
- The three infirmary porters who were interviewed and whose medical records were reviewed had no documentation that they received the hepatitis B vaccination series or had been trained about blood borne pathogens prior to starting to provide sanitation services.
- The infirmary porters at LCC are not offered hepatitis A vaccination even though they will be cleaning the patient rooms and bathing areas where they will have a probability of the contact with fecal waste.
- Two of the three negative pressure rooms in infirmary were not fully operational on the first day of the site visit. The facility engineer had corrected this problem by the last day of the site visit.
- Paper barriers were noted to be used on most but not all examination tables.
- The temperature of the washer in the infirmary laundry room was found to be insufficient (120 F) to sanitize the infirmary patient linens.

Safety and sanitation inspections (environmental rounds) are performed by the health care team on a monthly basis and reported by the HCUA. A number of reports from July 2017 through February 2018 were reviewed by the experts. These rounds identified concerns, some of which appear to have been corrected or are being addressed. However, the inspection reports repeatedly noted a number of deficiencies, including mold/mildew on walls and

ceilings, missing cold and hot water knobs in common patient showers, and non-functional toilets that do not appear to have resulted in correcting the deficiency.

Sharps boxes, gloves, handwashing sinks, or sanitizing gel was found in all clinical areas. Paper barriers were being used on only three of the five examination tables in the outpatient clinic exam rooms. Small tears in exam tables and crusted mineral deposits in two sinks in health care areas make it difficult to fully sanitize these items.

Two of the three negative pressure rooms in the infirmary were not functional on the initial day of the site visit. The facility engineer was summoned, and all three negative pressure units were operational by the last day of the site visit.

Inmate porters perform sanitation duties. There is no schedule of routine clinic sanitation, and disinfection activities are not consistently performed in clinical areas. During this site visit, the pharmacy floors and countertops were dirty. The September 2017 CQI minutes include a Safety and Sanitation report that focused primarily on whether housing unit showers, sinks, and toilets are broken, but not on sanitation of clinical areas or housing units. We described the duties of the porters earlier in the Sanitation section of this report. We note, however, that there was no documentation in their medical records that they were immune to hepatitis B (or A) or if they had been vaccinated against hepatitis B (or A). The Wexford staff assistant who is responsible for the training of infirmary porters also was unable to provide documentation that the three porters had been trained or vaccinated. All infirmary porters must be trained and fully vaccinated prior to being assigned to duties in the infirmary, where there is higher risk of exposure to pathogens and a more frequent and higher degree of sanitation is needed.⁴⁸

CQI meeting minutes contain reportable disease statistics, but no analysis of prevalence or incidence of new infections. As an example, there is no analysis of Methicillin-Resistant *Staphylococcus Aureus* (MRSA) infections to determine whether infections are clustered in certain housing units that might require further screening and intervention. LCC does not have an effective infection control program.

In summary, LCC does not have an infection control nurse, the function of the negative pressure rooms was not adequately monitored, the training of the infirmary porters about their job duties and exposure and prevention of blood-borne infections was not documented, there is no evidence that the infirmary porters had received hepatitis B (or A) vaccination or had immunity to hepatitis B (or A), some deficiencies noted on safety and sanitation rounds do not appear to be corrected, there are health care unit sinks with crusted mineral deposits, and exam tables with torn upholstery, and CQI minutes lack analysis of infection control data.

We concur with the recommendations of the First Court Expert on Infection Control. We have additional recommendations that are included at the end of the report.

⁴⁸ Infirmary Patients #5, 6, 7.

Radiology Services

Methodology: We inspected the radiology unit and reviewed x-ray logs.

First Court Expert Findings

The First Court Expert's report did not include any findings about the radiology equipment or services

Current Findings

- The Illinois Emergency Management Agency (IEMA) radiation safety inspections and reports for the radiology units at LCC are current. The active x-ray equipment at LCC was found to be in compliance with the Radiation Protection Act of 1990.
- The access to plain film x-rays at LCC is good.
- The turnaround time for radiologist readings and return of the reports is good.
- The lack of a shielded post to take panorex films has the potential for radiation exposure to the radiology technician.
- The system decision not to have the x-ray technician wear radiation exposure dosimeters may not be in accord with State of Illinois regulations and is definitely not in accord with community practice.

IEMA inspected and certified the LCC radiology units in September 2017; this certification is valid through September 2019. The x-ray technician produced his current license, which is valid through July 31, 2018.

Plain film non-digital x-ray services and panorex studies are provided Monday, Wednesday, and Friday during the daytime hours by a single radiology technician who staffs and manages the unit. The technician estimated that 50 patients generating about 90 plain films receive x-rays on a weekly basis. Mammography studies are performed on Tuesday and Thursday by a contracted mammography technician. An intact lead apron to shield patients was inspected. Patients requiring advanced or emergency studies are referred to local hospitals in Springfield or occasionally to UIC Medical Center.

It was reported that there is not a waiting list for non-urgent onsite x-rays. Most x-rays are reported to be taken within one to two days after receiving the order. Weekend and holiday requests are completed on the next working day. The requests and the radiology log for 18 patients were reviewed. All 18 had films taken within one to four days of the request. Audits of films taken on April 13 and April 18, 2018 revealed that all of the films were read and returned to LCC in two to three days. Abnormal results are called in by the reading radiologist; most results are faxed on the day of or after the reading is completed. The films are read by a local contracted radiologist in Bloomington, Illinois.

The chest x-ray unit and the plain film table are in a room that has a shielded post for the technician to stand behind while the film is being taken. The radiology technician has a dark room and a work space immediately adjacent to the plain film suite. The panorex was added to

the LCC radiology services after the radiology room had been constructed. It was located in an interior hallway that connects to the other side of the technician's work space. There is not a shielded post that can be used when panorex films are taken; the technician has to stretch the trigger cord as far as he can and then stand behind a cabinet in the work space to minimize his risk of radiation exposure. He is not aware if IEMA or the IDOC has ever measured the radiation exposure generated when panorex films are taken.

The x-ray technician was noted not to be wearing a radiation exposure dosimeter badge. They stated they had been told by Wexford that the State of Illinois does not require the use of dosimeters. They communicated that they are required to wear a dosimeters at their other work site.

In summary, the radiology services at LCC have reasonable access to x-ray services and reasonable turnaround time of radiologist readings and reports. The location of the panorex and the absence of a shielded post to take panorex films raises concerns about the risk of radiation exposure. The decision of the system to not provide radiation exposure dosimeter badges is not in accord with community standards and needs to be further reviewed by the State of Illinois IEMA and possibly OSHA.

The First Court Expert's report did not have any recommendations about the radiology services. We have noted recommendations that are noted at the end of the report.

Infirmary Care

Methodology: Accompanied by either the HCUA or the Wexford staff assistant, the Expert toured the infirmary, inspected the clinical space and equipment, and audited infirmary charts. Nursing staff, porters, and patients-inmates were interviewed.

First Court Expert Findings

The First Court Expert noted significant concerns about the condition of the paper medical record in the infirmary. Information was kept in two files, reports and notes were loosely dropped in the chart binder, forms were not in chronological order, admission orders could not be found, consultation reports could not be located, and the SOAP charting method was not utilized. The expert also reported that there was not a nurse call system, nurse admission notes were inconsistently completed, and vital signs were not consistently performed. The expert reported that the provider notes were thorough and written at least daily.

Current Findings

Since the visit of the First Court Expert, LCC has implemented an EMR system that addressed most of the deficiencies related to the poor organization of the former paper medical record and the inability to find clinical information. A nurse call system has been installed adjacent to all the non-crisis infirmary beds. Vital signs are regularly taken. We identified the following confirmatory and additional findings.

- The infirmary was clean and organized.

- An EMR has been implemented since the First Court Expert's visit but there are an insufficient number of devices to enter information into the EMR on the infirmity unit. There needs to be as many devices as the number of potential simultaneous users. This reflects on a poor EMR implementation process.
- A nurse call device was mounted next to each non-crisis infirmity bed. The system was verified as being operational. Patients demonstrated competency in activating the system.
- Nurse and provider admission and progress notes were written in accord with established timelines. We did note, however, on record reviews that the provider occasionally but routinely writes notes at home after work hours. Notes should be written at the time service is provided.
- There is a nurse assigned to the infirmity on every shift, seven days a week; however, not all of the infirmity shifts were covered by an RN.
- Vital signs in the infirmity were regularly taken and recorded.
- The failure of the health care system and the providers at LCC to monitor and track weights contributed to delays in initiating needed diagnostic testing.
- The failure of the infirmity provider to timely consult with medical and surgical specialists put infirmity patients at risk for disease progression and increased morbidity. The collegial referral system added little value and contributed to delays in accessing specialty consultation.
- The provider's use of antibiotics and antifungal agents was excessive and not in alignment with current practice of care, and put patients at risk for complications of antibiotics, superinfections, and resistance to antibiotics.
- Offsite specialty consultation reports were not consistently retrievable in the EMR.
- The utilization of warfarin for anticoagulation is logistically complicated and puts patients at risk for serious medical complications due to failure to consistently obtain therapeutic levels of coagulation. It is our opinion that the IDOC should consider newer alternatives to warfarin for anti-coagulation.

The infirmity is located at one end of the medical building. The unit consists of single and double bed rooms. There were three crisis/negative pressure rooms with large glass viewing panels situated directly in front of the nursing station. The physical plant appears to be unchanged since the First Court Expert's site visit in 2014. With the exception of the crisis rooms, hospital beds with adjustable heights and sections in good condition were universally deployed in all infirmity rooms. The crisis rooms had concrete beds with intact mattresses.

Nurse call devices were mounted on walls adjacent to each infirmity bed. The system was verified as being operational. Patients demonstrated full understanding of how to activate the nurse call device. There were no nurse call devices in the crisis rooms, but the rooms were in the line of sight and/or sound of the nursing station.

At the time of the visit, all of the patients housed in the infirmity were able to independently perform their personal activities of daily living (ADL). This was in marked contrast to the

infirmaries at previously inspected male IDOC facilities, where up to fifty percent (50%) required total or partial care with their ADLs.

IDOC Policy 04.03.120 Offender Infirmary Services⁴⁹ directed nurses to write admission notes at the time of admission and progress notes no less than daily for acute patients and weekly for chronic patients. Providers are to write admission notes within 48 hours and progress notes no less than three times a week for acute patients and once a week for chronic patients. Review of five current infirmary records with six infirmary admissions verified that each of these patients had nurse admission notes on the day of admission and no less than daily progress notes; most records had notes on each shift, on all patients. Provider admission notes were written on the six admissions within 48 hours and the five chronic patients had progress notes no less than weekly. The one acute admission was discharged on the day after admission. We did note on record reviews, however, that provider notes are sometimes entered late at night; sometimes around midnight. We were told that the provider will routinely write infirmary notes after hours. For one episode, a provider wrote a discharge note from home for a discharge that occurred 8 days earlier.⁵⁰ We found several examples of this and were told that it is a routine practice. As we noted in the medical record section, there are an inadequate number of devices on the infirmary to access the electronic medical record and this is one contributing factor. We also believe that there is inadequate physician staffing as this physician does not appear to have time to write all her notes at the time care is administered.

One nurse is assigned to the infirmary on every shift, seven days a week. Although RNs covered most shifts, LPNs were sometimes assigned to infirmary shifts. If the infirmary is near full occupancy or the patients' acuity level of care is higher, additional nursing personnel (LPN, CNA) would be needed to address patient care needs.

Although the frequency of provider progress notes and quantity of documentation was reasonable, we had a number of concerns about the quality of the provider's clinical judgement, accuracy of clinical diagnoses, rationale for therapeutic clinical decisions, and understanding of when to consult outside specialists or refer patients whose conditions warranted inpatient care. The provider ordered antibiotics or antifungal agents when there was no justification for their use. These medications were continued for durations of time that were not warranted by the patient's condition. The provider prescribed confusing combinations of antibiotics and antifungal agents that were not clinically justified which put the patient at danger of serious gastrointestinal infections and antibiotic resistance. Patients whose conditions warranted the early and ongoing involvement of specialists were treated in the infirmary by the primary care provider in lieu of referral. Doctors utilized presumptive diagnoses without obtaining diagnostic testing or consultative referral necessary to make a diagnosis. The diagnostic testing or consultation necessary for a definitive diagnosis were either

⁴⁹ Offender Infirmary Services.

⁵⁰ Patient #2 Hospitalization and Specialty Care. In this case, the doctor wrote a discharge note on 9/7/17 for a discharge that occurred on 8/31/17. This patient also had episodes in which the physician wrote notes at a later time for events that happened the day before. In this 9/7/17 episode, the doctor also appeared to have cut and pasted a portion of a mental health note to her note which made the note appear nonsensical.

not timely done or not done at all. We had a number of concerns about the care provided to infirmity patients which are provided below.

- The first example is a patient who had complaints of persistent lower abdominal pain, intermittent episodes of passing bright red blood from her rectum, and progressive weight loss for almost a year without timely work up.⁵¹ She was noted as having anemia as early as January of 2017. The providers failed to note her weight loss; she was initially treated in January of 2017 for presumed diverticulitis without benefit of diagnostic studies (CT scan, ultrasound or follow up colonoscopy). A CT scan should have been done for a diagnosis of diverticulitis and colonoscopy should have been done for symptoms of abdominal pain, passing blood, anemia, and weight loss and for follow up screening for cancer if diverticulitis were diagnosed. From January to September of 2017 we noted 11 documented weights all showing progressive declining weight. Yet, only one provider note mentioned weight loss, and this was recorded seven months prior to her admission to the infirmity. In July of 2017 a provider noted that the patient had no “red flags” when at that visit the patient had a 28 pound weight loss. Eventually, on 9/26/17 the patient was admitted to the infirmity with nausea, vomiting, and abdominal pain. No diagnostic testing or consultation were ordered in the outpatient clinics.

The initial therapeutic plan on the infirmity was to add ciprofloxacin to an ongoing prescription of metronidazole. The infirmity provider’s plan was to continue antibiotics without ordering diagnostic testing (CT scan and white count), which is typically necessary to make a diagnosis of diverticulitis. Only after another 12 days in the infirmity did a provider note that the patient had lost a significant amount of weight and diagnostic testing was initiated. At this point the patient had lost 40 pounds. A CT scan was not done for about three weeks for what was an urgent medical problem. The CT scan showed a colon mass, likely cancer with metastases to lymph nodes and liver. Biopsy was done electively. Over two months after admission to the infirmity the patient was finally admitted to a hospital for surgery. Chemotherapy started a month later. This patient’s complaints were not timely identified or evaluated, and resulted in late diagnosis and treatment of cancer that likely significantly harmed the patient. The metastases to the liver increased the probability of early death from this condition. The failure to link the weight loss to her symptoms indicated either incompetence, indifference, or negligence by the providers.

- Another patient had clinical history of transient ischemic attack, mitral valve replacement in 2006, severe tricuspid valve regurgitation, chronic atrial fibrillation, chronic kidney disease, COPD, left atrial appendage thrombus, chronic anticoagulation on warfarin, and chronic congestive heart failure (CHF), NYHA Class IV.⁵² This patient was noted to have repeated episodes of bradycardia (slow heart rate) and multiple

⁵¹ Infirmity Patient #1.

⁵² Infirmity Patient #2.

itchy, draining skin lesions. The patient was admitted to the infirmary in September 2016 after hospitalization for heart failure and severe non-operable tricuspid regurgitation.

From October 2016 through April of 2018, the patient's level of anticoagulation was not therapeutic 29% of the time. Since July 2017, the patient had chronic itching with excoriated draining skin lesions which failed to resolve. Yet despite being unable to develop an adequate therapeutic plan or diagnosis, the patient was not referred to a dermatologist. We noted that the patient was on a medication (torsemide) which can cause a similar rash, yet this was unnoticed by providers. From July 2017 through March 2018, the patient had at least eight episodes of bradycardia. The slow heart rate was not noticed based on provider notes and there was no history or evaluation for associated symptoms of bradycardia. The patient was taking a medication (metoprolol) with a known side effect of causing bradycardia, but this medicine was not stopped nor was the dosage decreased. The provider did not document that any other heart condition was considered as the etiology of the slow heart beats, nor was consultation with a cardiologist requested.

In April of 2018, the patient was admitted to a hospital for tachycardia (130) and hypoxemia (oxygen saturation 88%). At the hospital, bradycardia (pulse in the 40s) was noted. Sick sinus syndrome⁵³ was identified and a pacemaker was inserted. On return from the hospital, the medication likely causing the rash was discontinued and the metoprolol dose was decreased. Doctors at LCC failed to adequately evaluate the patient's skin rash, failed to identify potential medication adverse reactions, failed to adequately identify or evaluate the slow heart rate with diagnostic testing, and failed to timely refer the patient to a cardiologist for slow heart rate in a patient with atrial fibrillation. These failures placed the patient at risk for harm.

- Another patient, newly incarcerated at LCC, was admitted to the infirmary with severe damage to her toes from frostbite.⁵⁴ The patient was incarcerated on 1/30/18 and was noted to have a one month history of black, swollen toes. She was admitted to the infirmary and started on an antibiotic without documentation of the reason for initiating the antibiotic. A progress note on 2/20/18 documented gangrene and another antibiotic (cephalexin) was added to the metronidazole. On 3/6/18, fluconazole was added to metronidazole and cephalexin. The reason for this was not given and there was no apparent indication for adding an antifungal agent to the therapeutic plan, and the doctor did not document the infection resulting in the decision to start metronidazole or cephalexin. The 3/9/18 progress noted stated that right distal large phalanx was hard, dry, and black. On 3/12/18, 42 days after admission to LCC and 27 days after admission to the infirmary, the patient was seen by a general surgery consultant, who

⁵³ Sick sinus syndrome is a cardiac arrhythmia that results in a slow heartbeat. This arrhythmia typically requires a pacemaker. Notably this patient had a slow heartbeat for months which was not appropriately evaluated until emergency hospitalization occurred.

⁵⁴ Infirmary Patient #3.

recommended that the patient be referred to a podiatrist. This referral was not timely. Referral to surgical consultants with experience in managing frostbite needs to be prompt to prevent unnecessary amputation. The LCC doctor continued antibiotics without clear documentation of why they were being used. Cephalexin was discontinued on 3/12/18 and metronidazole stopped on 3/16/18, but fluconazole was ordered to be continued for another three weeks. On 3/23/18, metronidazole was reordered. A podiatry consultation appears to have been scheduled on 3/27/18, but may not have taken place (no consultation report, no provider progress note). On 4/14/18, the provider noted "no signs of infection," but cephalexin was added to metronidazole. The patient was seen by podiatry at Taylorville Podiatry on 4/19/18. The podiatrist recommended elective amputation. The podiatry consultation report was not located in the EMR. The doctor treated the patient with a changing and inexplicable array of antibiotics, including an oral anti-fungal agent for which there was no documented indication. The patient had black gangrenous toes and should have been either hospitalized or promptly referred to a foot specialist experienced in managing frostbite injury for early consultation to maximize the potential viability of her damaged toes. The first documented podiatry appointment occurred 66 days after her admission to the infirmary; the podiatrist immediately made arrangements to amputate one of her large toes. The excessive use of combinations of antibiotics and antifungal agents was unwarranted and exposed the patient to the risk of medication side effects. We note that the consultation reports were not found in the EMR. We also noted several late-night after-hours notes were written for this patient.

- Another patient is a 42-year-old patient had a history of total abdominal hysterectomy/ovarian cyst in 2010, and obesity.⁵⁵ She was admitted to the infirmary for observation on 9/7/17 for abdominal pain and a complaint of an enlarged abdomen, but was discharged the following day. She again complained of abdominal pain on 10/5/17 and was found to have mild anemia, for which iron was started without any other diagnostic testing except a normal plain abdominal x-ray, which has little utility in evaluation of abdominal pain. By January 2018, the patient still had abdominal pain and was admitted to the infirmary. For the five month period from September through January, we noted four evaluations for abdominal pain during which the weight loss of the patient was not noted. We noted a 13.5 pound weight loss since August 2017. A doctor initiated treatment for diverticulitis with ciprofloxacin and metronidazole, ordered an elective abdominal ultrasound, but discharged the patient the same day back to general population. This is an inappropriate therapeutic plan, as diverticulitis is an urgent problem. The patient should have remained on the infirmary until the conclusion of the diagnosis and the evaluation should have been promptly conducted. Instead, the ultrasound was not done for almost a month and showed a large pelvic mass. A subsequent CT scan showed an ovarian mass, possibly carcinoma. Approximately six weeks passed before the patient was hospitalized on 4/3/18 for exploratory surgery. This was a significant delay to diagnose and initiate treatment of

⁵⁵ Infirmary Patient #4.

the patient's condition. After return to the infirmary post-hospitalization, a final pathology report was not available in the medical record; a preliminary report indicated a benign condition. We remain concerned about the lack of attention to weight loss. This appears to be a systemic problem in the IDOC, as we have seen this on multiple record reviews at multiple sites, including on multiple death records. Whether this is due to indifference, lack of primary care training of providers, or some other reason is unclear, but the IDOC needs to address this issue.

- Another infirmary patient is a 28-year-old who had a history of four episodes of recurrent deep vein thrombosis (DVT) and pulmonary emboli since 2012 requiring continuous anti-coagulation therapy.⁵⁶ Since 2015, the patient had a right lower extremity ulcer. She had been on the infirmary for the past eight months for the non-healing, draining leg ulcer. The doctor ordered a confusing and changing combination of antibiotics without apparent indication. These included levofloxacin (9/20/17-10/25/17), doxycycline (12/18/17-1/23/18), trim-sulfamethoxazole (1/23/18 to 4/23/18), levofloxacin plus trim-sulfamethoxazole (2/28/18 to 4/23/18), fluconazole once weekly off and on, and metronidazole off and on for a number of courses. Over an eight month period, the provider failed to evaluate the patient for osteomyelitis despite the patient having a chronic draining ulcer over a bone. The doctor should have considered or ordered bone scan, bone biopsy, MRI, and blood tests (white count, blood cultures, CRP, or sedimentation rate). In March and April 2018, the provider submitted several referrals to an infectious disease doctor which were denied by Wexford utilization, even though it appeared that the doctor was uncertain how to manage this condition. This patient clearly needed specialty consultation due to the doctor being unable to diagnose the patient's serious medical condition, but these requests were denied without appropriate alternatives. With respect to anticoagulation for this patient, the INR levels were in the therapeutic range only 47% of the time. Her anticoagulant was modified 13 times in response to the high or low INRs. Given the inability of physicians to maintain therapeutic control and the logistics of warfarin anticoagulation in a correctional setting, newer alternative anticoagulants that are less complicated and safer to administer should be used. The lack of timely evaluation for osteomyelitis was a significant problem, as the patient has had the leg ulcer for over eight months. This places the patient at significant risk of harm.

In summary, with the exceptions noted in the first paragraph of the current findings section that the EMR had addressed many of the deficiencies in the medical record and nurse call devices had been installed in most infirmary rooms, we agree with the recommendations of the First Court Expert and have additional recommendations that are found at the end of this report.

⁵⁶ Infirmary Patient #5.

Chronic Care

Methodology: The chronic care nurse was interviewed about the chronic care scheduling and tracking processes. The current chronic care annual schedule, the chronic care patient lists, and chronic illness medication lists were reviewed. The chronic care nurse practitioner was interviewed. The records of 15 patients with chronic care illnesses and conditions were reviewed. The Office of Health Services Chronic Illness Treatment Guidelines dated March 2016 and the IDOC Hepatitis C Guidelines December 2017 were reviewed as needed.

First Court Expert Findings

The First Court Expert noted that the chronic care program at LCC lacked oversight and organization. The chronic care nurses' duty to compile lists of patients' degree of control was not being done. There was a very large backlog in scheduling patients for chronic care appointments. The part-time provider staffing the chronic care clinics only saw chronic care patients one day a week. This provider's notes were completely illegible. The Medical Director was seeing the majority of the chronic care patients in sick call sessions; this was decreasing patients' access to sick call and urgent care services. The expert noted that it was impossible to determine how many patients were enrolled in LCC's chronic care program.

Current Findings

The First Court Expert's finding of not having an assigned nurse for chronic care has been resolved. Also, patients are now assigned to clinics and regularly seen. We identified current and additional findings as follows:

- An EMR has been implemented at LCC. This addressed the First Court Expert's strong concerns about the legibility of provider notes.
- LCC now has assigned a single, dedicated nurse to coordinate the chronic care program.
- Patients assigned to chronic care clinics are regularly seen in these disease specific clinics.
- The nurses pull the MAR's for patients' chronic care visits, but there is no documentation that the providers review this important clinic data about medication compliance and CBGs.
- The MAR is still completed manually by the nursing staff. Blank days, non-approved codes, and illegibility were noted for dose-by dose medications and varying methods of documentation were utilized for KOP medication delivery. The lack of accuracy of the MAR's is a barrier to verifying a patient's compliance with medications and determining the efficacy of the treatment.
- LCC does not reschedule chronic care appointments of patients who refuse a chronic care visit until four to six months later, when the next disease specific chronic clinic is held and does not have a process to monitor and track the status of these patients during the intervening months.
- LCC primary care providers and nurse do not have access to current, comprehensive, electronic medical references such as UpToDate in all clinical exam rooms and offices.
- LCC does not screen patients over 50 years of age or patients with high-risk clinical conditions for colon cancer as is recommended by national guidelines. None of the four

patients over 50 years of age whose records were reviewed had been screened for colon cancer.

- LCC does not calculate 10-year cardiovascular risks for adult patients as directed by the ACC/AHA and IDOC treatment guidelines.
- LCC does not administer age-based and disease-based adult preventive vaccinations, including pneumococcal 13 and 23, diphtheria, tetanus, and pertussis, meningococcal as recommended by the Center for Disease Control (CDC),⁵⁷ or routine health maintenance screening tests as recommended by the USPSTF.
- Only one (9%) of 11 patients with chronic illnesses, including asthma, CHF, COPD, HIV, diabetes, and cancer on chemotherapy had received pneumococcal 23 vaccination. The only patient over 65 years of age whose chart was reviewed had not received pneumococcal 13 or 23 vaccinations. Only one (33%) of three HIV patients had documentation of having received pneumococcal 23 vaccination; none of the three had received pneumococcal 13 or meningococcal vaccinations.
- The current disease specific chronic care schedule contributes to delays in achieving control of chronic illnesses.
- Providers at LCC inconsistently document the rationale for clinical decisions and diagnoses in the chronic care progress notes.
- HIV patient with active hepatitis C are not timely advanced toward the evaluation and initiation of hepatitis C treatment.
- The process to determine eligibility for hepatitis C treatment is excessively lengthy and a barrier to the initiation of treatment. It is not consistent with processes in other correctional facilities and public health systems.

With the exception of the general medicine clinic, the non-baseline chronic care clinics (asthma, cardiac/hypertension, diabetes, hepatitis C, high risk/HIV, seizure) are silos in which only a single disease is managed. The schedule for these clinics is inflexible and not based on the degree of control of a patient's illness.⁵⁸ This has the potential to harm patients, as patients are evaluated on this schedule irrespective of the degree of control of their illness. Therefore, persons who need greater attention because their disease is poorly controlled may not receive it.

We view this as inefficient, wasteful, and potentially harmful. Patients should be evaluated as frequently as is necessary to establish disease control and not based on an inflexible schedule. Primary care doctors need to coordinate care for the patient, integrating treatment for all of the patient's conditions. When specialists manage a single illness, they typically list all of the

⁵⁷ CDC Recommended Immunization Schedule Adults 19 Years of Older, United States, 2018.

⁵⁸ LCC's chronic care clinic annual schedule is as follows: asthma (January and July,) diabetes (April, August, and December), cardiac/hypertension (A-L March and September; M-Z April and October), general medicine (May and November), hepatitis C (June and December), high risk/HIV (monthly), seizure (February and August), and TB (monthly, annual education). LCC has combined two conditions, diabetes/lipids and diabetes/hypertension, for simultaneous evaluation in the initial baseline clinic but not in the follow-up chronic care clinic session. Hepatitis C patients who have not yet met the IDOC criteria for treatment are seen in the June and December hepatitis C chronic care clinics. Other chronic illnesses (hyperlipidemia, anemia, cancers, multiple sclerosis, sickle cell disease, neurological disorders, etc.) are treated and monitored in the general medicine chronic care clinics.

patient's other medical conditions and medications, and consider the implication of all diseases on the condition being monitored. In the IDOC, every single disease is managed as if it is the only disease the patient has. Diseases are often interrelated such as metabolic syndrome.⁵⁹ Drug-drug interactions need to be considered in management of medications. Some illnesses have an effect on other illnesses. When IDOC providers evaluate patients in individual chronic care clinics, they do not list the patient's other illnesses and do not address any other conditions, even when a condition may not be in control or may have an impact on the condition being treated.

Some illnesses are managed in specialty clinics. All individuals with HIV and eligible patients cleared for treatment with hepatitis C are managed via telehealth by the UIC infectious disease telehealth clinic. UIC HIV telehealth clinics are held monthly. A monthly telehealth renal clinic staffed by a consulting nephrologist is scheduled as needed. This kidney specialist also provides telehealth consultation to other IDOC facilities.

The high risk/HIV chronic care roster was compared to the medication list to assess the accuracy of the chronic care roster. Five patients were not on the chronic care roster who were receiving HIV meds. Four of these five patients had recently been transferred to DCC; the other patient had only recently been started on HIV medications. It appears that the roster is accurate.

On April 6, 2018, the census of LCC was 1,617, with an additional 230 patients housed in Reception & Classification (R&C) and Segregation. The March 2018 Chronic Care Clinic Roster was as follows:

Clinic	Patients	Percentage of ADC (1,617)
Asthma	183	11.3%
Cardiac/Hypertension	362	22.4%
Diabetes	91	5.6%
General Medicine	195	12.1%
Hepatitis C	174	10.8%
High Risk/HIV	16	1.0%
TB	30	1.9%
Chronic Care roster	1,141*	

*Individual patients with more than one chronic illness are enrolled in a number of chronic care clinics.

These percentages reflect the prevalence of each chronic illness in the LCC population. The chronic roster of 1,141 patients was not further analyzed to determine how many unique women were on this roster. The percentage of individual women with chronic illnesses would be significantly less than 1,141.

⁵⁹ Metabolic syndrome is a combination of diabetes, hypertension, and high blood lipids. These inter-related conditions must be treated as a single disease. When kidney disease, retinopathy, or neuropathy exist with diabetes, they are also treated as diseases related to diabetes.

The chronic care clinic scheduling processes were reported as follows:

1. Providers and nurses enter chronic illnesses into the EMR.
2. EMR generates the baseline chronic care list, nurses review the list, order lab panels, and verify that labs are completed.
3. EMR sends a reminder for baseline appointments that are to be scheduled within 30 days, nurses manually enter the appointment in 360 (an IDOC program).
4. Chronic care clinic rosters are maintained by clinic in 360 (an IDOC program).
5. Nurse coordinator downloads and prints the next month's follow-up chronic care patient list from 360 and searches EMR to verify or order labs.
6. Once lab results are in EMR, nurse enters an appointment in the EMR.
7. A nurse schedules 13-15 patients per day for the chronic care provider (12-13 patients in the morning and 1-3 patients in the afternoon).
8. Appointment schedules are printed, and administrative staff fill out movement passes that are given to corrections 24 hours in advance.
9. IDOC transports patients to the clinic.
10. Nurses manually enter into 360 all no shows and patients seen; EMR also maintains and tracks patients seen, no shows, and refusals.

Patients who choose to refuse to be seen in a chronic care clinic are to be transported to the clinic to sign a refusal form; in practice, corrections is reluctant to force a patient to walk to the health care building to sign the refusal. When a patient does not arrive for a chronic care clinic session, nurses staffing the chronic care clinic call the officers in the housing units to remind them to move the patient. If the officer informs the nurse that the patient is refusing, no further action is taken. Providers are informed when a patient has refused a chronic care clinic visit. The provider reviews the new lab reports in the EMR and reorders or adjusts any ongoing medications for chronic clinic refusals. Even if the patient's chronic condition is not controlled, patients who refuse a visit will not be rescheduled until the next scheduled chronic care session, which is as long as six months later. We were informed that this is done to instill responsibility and accountability into the patient. The staff related that no focused review of vital signs or capillary blood sugars or medication compliance are done during the many month interim before the next disease-specific chronic care clinic to minimize the risk of clinical deterioration for patients who have refused the chronic care visit. Patients who refuse chronic care visits tend to fall into high-risk categories; many have mental health conditions. This current practice puts patients at risk. LCC must develop and implement a process to intermittently monitor patients who refuse chronic care appointments. Patients not brought to clinic because of lockdowns or correctional or weather issues are rescheduled to be seen within a week or two.

The chronic care clinics at LCC are primarily staffed by a full-time nurse practitioner, but the physician provider also sees a number of complicated or special interest chronic care patients. The nurse practitioner reported that her chronic care clinics run six hours per day and with up to 20 patient appointments scheduled per day. Two nurses support the chronic care clinics; scheduling patients, ordering labs, pulling medication administration records (MAR) mainly for CBG results, and doing vital signs. Although it was reported that MAR's are pulled for review at

chronic care visits, the experts did not find any documentation in the visit notes that this valuable information about medication compliance and CBG's on the MAR's were ever reviewed. It was reported that the physician annually reviews and makes clinical suggestions on all of the nurse practitioner's chronic care charts. The provider mentioned that there is a need for onsite podiatric consultation for foot and nail conditions that cannot be readily addressed by LCC's primary care staff. The physician stated that she did not have access to Up-to-Date but occasionally accesses some of the other online, less comprehensive medical references. One nurse practitioner and one physician assistant had access to personally purchased, comprehensive, current (UpToDate®) electronic medical references. Another nurse practitioner stated she did not have access to comprehensive electronic medical references.

In March 2018, 157 follow-up chronic care and 100 chronic care baseline visits were performed. Based on a review of chronic care medical records, most patients with chronic illnesses at LCC are seen by providers in the chronic care clinics approximately twice a year. Diabetic patients were found to have HbA1C testing on a regular basis, documented foot exams, urine microalbumin-creatinine ratio testing, and annual eye evaluations by an optometrist.

Providers were generally critical of the utilization management program that served as a barrier to timely care. One provider questioned the need for collegial requests/approvals for specialty consultation and to order onsite ultrasonography studies and non-formulary labs, in particular certain tests to monitor cancers that have been requested by specialists. This process delays access to these and other diagnostic studies and specialty consultations. We agree. One provider reported that, with the exception of breast and cervical cancer screening, no one does age-based routine health maintenance screening or age and disease-based vaccinations at LCC.⁶⁰ One provider stated that the current IDOC policy to perform rectal exams and a single fecal blood test is not a valid screening test for colon cancer. The provider also communicated that colon cancer screening using the three separate fecal occult blood cards methodology could be used but is not because of the institution's practice to make patients come to the health care unit to defecate to obtain the specimen was too cumbersome. This practice was reported to have been established because the women might tamper with the test if allowed to gather the specimen in the housing unit. The provider was not aware of the new fecal immunochemical test (FIT) that is available to screen for colon cancer. The failure of LCC to screen for colon cancer does not meet the national and community standards of care.

The care provided to a number of patients with chronic illnesses had deficiencies. The providers did not consistently document the rationale for clinical decisions, including the selection of medications, changes in medications, and modification of medication dosages. It was difficult to understand the reasoning for the treatment regimens that were being provided to some patients. Some patients needed specialty consultation but did not receive it. Consultants recommended additional diagnostic studies for a patient but there was no documentation in the medical record that these tests were ordered and there was no documented clinical rationale for not proceeding with the recommendations. Some patients were treated with

⁶⁰ CDC Adult immunization schedule 2018, reference # USPSTF Colorectal Cancer Screening June 2016.

medications without appropriate indication. Fenofibrate was used to treat mild elevations of triglycerides in three patients, including two uncontrolled diabetics, when treatment was not indicated. Some patients had uncontrolled disease but the intervals of scheduled appointments were not appropriately shortened. Two patients with HIV and hepatitis C were not approved to begin evaluation for hepatitis C treatment until four and eight months respectively after admission to LCC. This is an excessive delay for HIV patients, who are considered at risk for accelerated deterioration and listed as priorities for treatment of hepatitis C. Patients with hepatitis C also do not receive HCV viral load testing as recommended in the IDOC Hepatitis C guidelines.⁶¹ As recommended in the IDOC hyperlipidemia treatment guidelines,⁶² LCC providers are not calculating the 10-year cardiovascular risk on older patients, diabetics, hypertensives, and those with hyperlipidemia. This has resulted in the failure to initiate statins, the proper dose of statins, or the proper intensity of statins on patients with a high risk of having a stroke or heart attack in the next 10 years. Diabetics, asthmatics, HIV patients, and patients over 65 years of age are not being offered protective pneumococcal vaccinations as is the national standard in the USA. Patients over 50 years of age or otherwise at high risk are not being screened for colon-rectal cancer; this is also not in accord with national standards of care. Many of these are systemic problems found at all facilities we have visited.

The following patient summaries highlight the concerns and the findings noted above.

Chronic Care Patient Summaries

- This patient is a 36-year-old with a history of HIV and hepatitis C who was admitted to LCC in July 2017 and followed in the UIC HIV telehealth clinic and the (LCC) hepatitis C clinic.⁶³ Her HIV viral load has been fully controlled and CD4 counts have ranged between 692 and 805. She had immunity to hepatitis A and B. Her HCV RNA was 639,892 IU/ml. Her last APRI was 0.89 in April 2017 and it was noted that she could now be worked up for hepatitis C treatment. This patient has not received pneumococcal 23, 13 or meningococcal vaccinations which are indicated for all patients with HIV. Her discharge date is March 2019. It took eight months before she was deemed eligible for the hepatitis C treatment process to begin. This delay put the patient at risk for complications of hepatitis C. In the United States, patients with hepatitis C and HIV are moved more expeditiously into hepatitis C treatment due to the more rapid progression of hepatitis C in patients co-infected with HIV.
- This 40-year-old patient has a history of HIV and hepatitis C.⁶⁴ She was admitted to LCC on 9/7/17; she did not agree to start HAART until 10/10/17. By 1/10/18, the viral load was <20 and the CD4 improved to 443. She was given pneumococcal-23 vaccine but not the meningococcal or pneumococcal 13 vaccines. At her first hepatitis C clinic visit on 9/28/17, vaccinations for Hep A and B were initiated. The HCV RNA was elevated, 7,727,120 IU/ml. In December 2017 the APRI score was 1.2 and at the 1/10/18 UIC HIV

⁶¹ Hepatitis C Guidelines December 2017.

⁶² Offender Health Services, Treatment Guidelines, Hyperlipidemia.

⁶³ Chronic Care Patient #1.

⁶⁴ Chronic Care Patient #2.

clinic, the provider recommended that she be evaluated for hepatitis C treatment as per IDOC protocol. As of 4/19/18, the patient has not started on hepatitis C treatment. In summary, the patient is seen regularly in the UIC HIV and the hepatitis C clinic. Her HIV is well controlled. She has not yet been offered meningococcal or pneumococcal 13 vaccinations. It took four months before she was deemed eligible for the hepatitis C treatment process to begin and another three months have passed and she has not yet started treatment. However, in many US medical centers, patients with hepatitis C and HIV have liver fibroscans ordered quickly and are moved more expeditiously into hepatitis C treatment due to the more rapid progression of hepatitis C in patients co-infected with HIV. Given that this patient did not start HIV treatment until October 2017, some time lag before initiating the evaluation for hepatitis C treatment was justifiable, but the delay to initiating treatment is excessive.

- This patient is a 35-year-old female with HIV.⁶⁵ Since 5/12/17, she was seen four times in the UIC HIV clinic. On 6/29/17, she agreed to start a new regimen of HIV meds. As of 12/18/17, she was still taking the meds; the viral load was undetectable and the CD4 817. There was no documentation in the UIC HIV notes reviewed that this patient had been offered or vaccinated with pneumococcal 13, pneumococcal 23, or meningococcal immunizations. She has not had a documented Pap smear since 7/28/15. In summary, this HIV patient is now fully controlled with an undetectable viral load and an excellent CD4 (817). She has not received pneumococcal 13, pneumococcal 23, or meningococcal vaccines. She has not received a Pap smear since 2015. The IDOC protocol states that women between 30-39 years of age are to have a Pap smear with HPV testing every three years. However, US guidelines state that HIV positive women must have three consecutive normal annual Pap smears before the testing interval is increased to three years. There was no documentation identified in the medical record that this patient previously had three normal annual Pap smears.
- This patient is a 38-year-old female with seizure disorder, chronic hepatitis C, and substance abuse.⁶⁶ She entered LCC on no medications. Her intake history was done on 11/21/17 and the physical exam on 11/22/17. She reported that she has had seizures occasionally accompanied by urinary incontinence since age 21. The seizures were treated in the community with Xanax (alprazolam). She reported that her most recent seizure occurred on 10/20/17. At that time the seizure was felt to have been precipitated by Xanax withdrawal or possibly opioid withdrawal (patient reported that she had stopped her methadone maintenance medications). LCC started the anticonvulsant Keppra (levetiracetam) 500mg BID at the time of the provider intake exam on 11/22/17. No additional workup was initiated to evaluate this history of seizure disorder. She was followed in the hepatitis C and seizure chronic care clinics. At the 12/22/17 hepatitis C chronic care clinic, lab results were noted as: hepatitis C antibody reactive, hepatitis A and B antibody positive (protective), liver enzymes elevated (AST

⁶⁵ Chronic Care Patient #3.

⁶⁶ Chronic Care Patient #4.

41, ALT 48), INR 1.1, and APRI 0.5. There was no record that the HCV RNA was performed as recommended in the system's hepatitis C guidelines.⁶⁷ She was deemed not eligible for treatment at this time. She has been seen twice in the seizure chronic care clinic. In summary, this patient has been seen in the hepatitis C and seizure clinics. To date, her HCV RNA level has not been performed as directed by the Hepatitis C Guidelines. If this test is negative, her hepatitis C has resolved, and she would no longer need to be followed in the hepatitis C clinic. This test must be performed as per protocol. This patient's seizure disorder has not been appropriately evaluated. Based on the patient's history, her seizures have a high possibility of being caused by withdrawal from benzodiazepines (or possible opioid withdrawal) such as Xanax (alprazolam), not by underlying epilepsy. The decision to start an anticonvulsant is reasonable pending further investigation into her seizure history, obtaining past medical records, and consultation with a neurologist. However, consultation with a neurologist has not been requested and there is no documentation that additional tests (electroencephalogram or CT scan of the brain) or outside medical records were requested. Anticonvulsant medications have multiple serious side effects. It is in the patient's best interests to determine if she really requires taking an anticonvulsant. LCC has not adequately evaluated this patient's seizure disorder; the level of care for this patient does not meet the community standard of care.

- This patient is a 66-year-old whose problem list includes seizures, diabetes, and hypertension.⁶⁸ Her medications included aspirin, metformin 500mg/d, simvastatin 5mg/d, and lisinopril 10mg/d. Although seizures are listed on her problem list, this patient is not taking an anti-convulsive medication and there is no mention of seizures or epilepsy in her medical record. This erroneous problem list entry must be corrected or clarified. Pneumococcal 23 vaccine was administered in 2014. Her diabetes is very mild and is controlled (median HbA1C 6.2). Her blood pressure has been adequately controlled; so well controlled that she may not require the anti-hypertensive that she is currently being prescribed. The LCC providers have not done this patient's 10-year cardiovascular risk scores as recommended in the IDOC's hyperlipidemia treatment guidelines,⁶⁹ but it computes to 17.7%. She has been prescribed a very low dose (5mg) of simvastatin, a moderate intensity statin. Based on national standards and the IDOC hyperlipidemia treatment guidelines, a diabetic with high 10-year cardiac risk should be prescribed a high intensity drug such as atorvastatin 40-80mg. This 66-year-old patient has not been offered nor received age-based screening for colorectal cancer or preventive vaccination against pneumococcal 13.

In summary, this patient has been seen regularly in the diabetes and hypertension clinics. Both of these chronic illnesses are controlled with low doses of medication. Her problem list erroneously listed "seizures;" this inaccuracy must be corrected. The LCC

⁶⁷ Hepatitis C Guideline, December 2017.

⁶⁸ Chronic Care Patient #5.

⁶⁹ Office of Health Services, Chronic Illness Treatment Guidelines, Hyperlipidemia, March 2016.

providers are not adhering to IDOC and national guidelines by failing to calculate this patient's 10-year cardiovascular risk score. This failure has resulted in this patient not receiving the recommended high intensity statin medication that has the potential to minimize her future risk of heart attack and stroke. This patient has not been screened for colorectal cancer; national standards recommend that all patients 50 years of age or older should be regularly screened for this potentially preventable cancer. IDOC policy advises rectal exams for patients over age 40 as part of their periodic physical exams. Rectal examination (with or without a single fecal occult blood test) is not a recommended screening test for colon cancer. This patient had not received pneumococcal 13 vaccination as recommended for all patients 65 years of age or older.

- This patient is a 50-year-old female with diabetes and hypertension.⁷⁰ Her medications include 70/30 insulin 56U/am and 54U/pm, sliding scale regular insulin BID, metformin 1000mg BID, fenofibrate 54mg/d, amlodipine 10mg/d, glipizide 30mg/d, aspirin, lisinopril 40mg/d, and triamterene/hydrochlorothiazide. She is followed in the diabetes and hypertension clinics. Fourteen HbA1C tests have been done in the last four years; not a single one has reflected adequate control. The HbA1Cs have ranged from 8.8 to 12.5 with a median of 10.2. The dose of 70/30 insulin has been steadily increased and is currently 56U/am and 54U/pm. The patient is also prescribed a sliding scale dose of regular (short acting) insulin before breakfast and dinner; this is in addition to the 17U/am and 16U/pm regular insulin that is being injected in the 70/30 combination. Adding additional regular insulin to the 70/30 insulin is potentially dangerous and poses a heightened risk of hypoglycemia. The patient is also receiving a high dose (30mg) of the oral diabetic agent, glipizide, which has little practical value in this patient who is already injecting very high doses of 70/30 insulin twice a day. Review of the 2018 MARs indicates good compliance with the medication regimen. Capillary blood glucoses (CBG) in 2018 have been consistently over 200. This patient's diabetes has not been controlled for the past four years. Consultation with an endocrinologist is needed but has not been requested. The patient is receiving four anti-hypertensive medications but 50% of the blood pressures recorded at the diabetes and hypertension clinic visits were not controlled. The LCC providers have not calculated this diabetic, hypertensive patient's 10-year cardiovascular risk scores as recommended in the IDOC's hyperlipidemia treatment guidelines,⁷¹ but it computes to 15.4%. The only anti-hyperlipidemia medication (fenofibrate) that she has been prescribed has limited if any cardio-protective value. Based on national standards and the IDOC hyperlipidemia treatment guidelines, a diabetic with high 10-year cardiac risk should be prescribed a high intensity statin. This has not been done and there is no documentation in the progress notes that this patient has any contraindications to the use of a statin. This 50-year-old patient has not been offered or received age-based screening for colon cancer or preventive vaccination against pneumococcal 23; vaccination that is recommended for all diabetics. In summary, for the last four years this patient's diabetes and hypertension have been

⁷⁰ Chronic Care Patient #6.

⁷¹ Office of Health Services, Chronic Illness Treatment Guidelines, Hyperlipidemia, March 2016.

uncontrolled. She is taking very high doses of injectable 70/30 insulin and a high dose of glipizide (oral agent) which has not been able to control her blood sugars. Her HbA1Cs persistently are in the 9-11 range. The use of a sliding scale in a patient injecting 70/30 is potentially dangerous, creates a significant risk of hypoglycemia, and should be stopped. Adding high dose glipizide to this patient's diabetic regimen increases the risk of hypoglycemia and has limited if any added value to the treatment of this patient's diabetes. An endocrinologist should be consulted to assist with the management of this complex and uncontrolled diabetic patient. The patient should be prescribed a high dose statin to minimize her risk of heart attack and stroke. This patient's blood pressure is not controlled; consultation with the telehealth nephrologist should be solicited. This patient is not receiving a level of care consistent to what is provided in the community.

- This patient is a 38-year-old female whose problem list includes diabetes and elevated triglycerides.⁷² Her current medications include 70/30 insulin 20U/am and pm, sliding scale regular insulin, metformin 500mg BID, and fenofibrate. She is followed in the diabetes and general medicine chronic care clinics. Since 2014 she has been seen 13 times in the diabetes clinic and five times in the general medicine clinic since 2016. The concomitant prescribing of 70/30⁷³ insulin and sliding scale regular insulin before breakfast and dinner puts the patient at risk for hypoglycemia. Metformin in varying doses has been started, stopped, and restarted. Glipizide was started and stopped. The 70/30 insulin dose of 20U/am and pm has not been increased since 2016 even though the four HbA1Cs in 2017-2018 have been 7.3 to 8.3. The provider's rationale for these changes or renewals were not documented in the progress notes. Her triglyceride level was 326 in 2014 when the HbA1C was 9.7 and 10.2. Her cholesterol was 226, HDL47, and LDL 152. Pneumococcal 23 vaccine has not been administered to this diabetic patient.⁷⁴ In summary, this diabetic patient has been seen regularly in the diabetes and general clinic. There is no reason why her very straightforward lipid concern could not be simultaneously managed in the diabetes clinic. The provider's chronic care notes give limited if any history about the patient's status, symptoms, and CBG's since the last visit. This patient's diabetes is only moderately controlled. The provider should have modestly increased the 70/30 insulin dose at the 4/19/18 diabetes clinic; there was no documentation in the progress note if this was considered or why this was not done. There also was no written rationale for the changing doses and the prescription/discontinuation of the diabetic oral agents. The continued use of fenofibrate has limited indication. There is limited justification to have started and continued fenofibrate for a moderately elevated triglyceride level in a diabetes patient who was not adequately controlled at the time of the initial testing as out of control diabetes raises the triglyceride level. Treatment should have been considered when the

⁷² Chronic Care Patient #7.

⁷³ 70/30 insulin is a combination of 70% isophane insulin and 30% regular insulin. When 70/30 insulin is used in combination with regular insulin, the dosage of regular insulin thereby increases. This combination can unknowingly result in higher doses of regular insulin than are realized.

⁷⁴ Office of Health Services, Chronic Illness Treatment Guidelines, Diabetes.

diabetes was under control. LCC providers have failed to administer pneumococcal 23 vaccine to this diabetic patient as is directed in the policies.

- This is a 50-year-old patient with non-insulin requiring diabetes and hypertension.⁷⁵ Her current medications include glipizide 20mg BID, metformin, lisinopril 10mg/d, metoprolol, simvastatin 40mg, and ferrous sulfate. She is followed in the diabetes and hypertension chronic care clinics. Since August 2016 she has been seen five times in the diabetes clinic and four times in the hypertension clinic. In 2016 and most of 2017, HbA1Cs were not at goal and ranged from 7.7 to 9.3. In December 2017, the HbA1C result was 6.9, which now reflected good diabetic control. Over the last two years the provider did increase, albeit belatedly, the doses of the oral diabetic medications. Seventy-five percent of the eight blood pressures recorded in the chronic care clinics in 2016-2018 were at goal. The provider's rationale to add a second BP medication, metoprolol, on 3/3/17 when this patient's BP was well controlled (123/83), was not documented in the progress notes. The use of metoprolol, a beta blocker that can mask the symptoms of hypoglycemia, is generally avoided in diabetics and no rationale for this decision was documented. Pneumococcal 23 vaccine has not been administered to this diabetic patient as recommended in the IDOC diabetes guidelines.⁷⁶ On 1/15/16, the patient (then 48 years old) was seen by the OB-GYN provider for heavy menses; the gynecologic exam was normal. An ultrasound on 5/14/16 reported the presence of uterine fibroids. The patient's hematocrit (red blood cell level) on 6/1/16 was 43.4%, hemoglobin 14.4, both normal levels. In November 2017, the now 50-year-old patient's blood counts (hematocrit/hemoglobin) had notably dropped to 24.5/7.0 and 24.3/6.9. Her MCV was microcytic consistent with iron deficiency anemia thought to be due to her menorrhagia (heavy menses). Iron supplementation was started, and the blood counts returned to normal (43.0/13.6) by 4/3/18. Although it is likely that the cause of the blood loss was heavy menses, this 50-year-old patient should have been investigated for other causes of blood loss, including gastrointestinal bleeding due to peptic ulcers or colon cancer. The failure to investigate alternate causes of blood loss was below standard of care. To date, this patient in her fifty-first year of age still has not been investigated or screened for colon cancer as is nationally recommend for all patient 50 years of age or older.

In summary, this patient was regularly seen in the diabetes and hypertensive clinics; there was no reason why these two conditions could not have been readily addressed in a single chronic care clinic. It should not have taken the chronic provider two years to get the patient's diabetes under control. The chronic care provider should have shortened the interval between visits and monitored CBGs in order to achieve control more quickly. The delay in advancing medications and doses was not justifiable. The LCC providers should have administered pneumococcal 23 vaccination to this diabetic as is recommended by national and IDOC guidelines. The failure of the providers in 2017 to

⁷⁵ Chronic Care Patient #8.

⁷⁶ Office of Health Services, Chronic Illness Treatment Guidelines, Diabetes.

consider alternate causes, such as gastrointestinal bleeding, for the patient's severe anemia put the patient's health and life at risk. All persons 50 years of age or older patients, should be screened for colon cancer. This has not yet been ordered.

- This patient is a 39-year-old female asthmatic.⁷⁷ Her current medications include levalbuterol inhaler and ciclesonide. Since early 2016 she has been seen five times in the asthma chronic care clinic. Her PEFs (peak expiratory flow rate) have been between 340 and 450 L/min. Her asthma did not require any urgent care visits, emergency department visits or hospitalizations. Wheezes were never detected at any of her asthma clinic visits. At the 1/25/17 asthma clinic, she reported that she was having two asthma attacks per week and the provider added ciclesonide to her asthma regimen. On 7/25/17, the patient reported that when the weather was hot she would use the inhaler three to four times per night and that one inhaler only lasted for one month. The provider noted that the patient should continue levalbuterol and ciclesonide inhalers. However, the MARs for September 2017 through February 2018 do not list ciclesonide as one of this patient's medications. At her most recent asthma clinic visit on 1/25/18, she reported that she was still using about one inhaler canister per month. The review of the MARs (September 2017 – February 2018) indicated that the patient had not requested any refills of the inhaler during this five-month period. There is no documentation in the progress notes that the provider had reviewed the medication administration records (MAR). If the MARs had been reviewed, the provider would have been aware that the patient was not using one inhaler per month as reported on 7/25/17 and 1/25/18, but was more likely refilling her inhaler every six months. This asthmatic has not received the pneumococcal 23 vaccine as is recommended for all asthmatics.

In summary, this asthmatic patient is relatively stable. Her PEFs were consistently between 340 and 450. An additional asthma medicine was added when the patient reported that she was having two attacks per week. The patient reported periods when she increased her use of metered dose inhaler from one canister every six months to one every month. The provider was not regularly reviewing the MARs. This resulted in the provider not knowing that the patient was actually using up her inhaler less frequently (every six months not every month) than she reported. This important clinical information would have allowed the provider to delve more carefully into the patient's history of asthma attacks and self-treatment, and possibly might have resulted in a decision to stop the use of one of her medications (ciclesonide). It is a national recommendation that asthmatics receive the pneumococcal 23 vaccine; this vaccine has not been offered to this patient.

- This patient is a 49-year-old female with multiple sclerosis and hypertension.⁷⁸ Her current medications include monthly injectable Copaxone (glatiramer), vitamin B12,

⁷⁷ Chronic Care Patient #10.

⁷⁸ Chronic Care Patient #15.

baclofen, oxybutynin, gabapentin, lisinopril, and fenofibrate. She has an unsteady gait, experiences urinary incontinence and blurry vision, and uses a walker. She is followed in the general medicine chronic care clinic mostly by the LCC physician and has had nine general medicine clinic visits in the last four years. The chronic care provider generally writes comprehensive notes commenting on the patient's condition, the neurologist consultations, and imaging reports. The LCC optometrist has seen the patient no less than yearly since 2014. Physical therapy has been provided to the patient at LCC since 2014. The patient has had six or seven neurology consultations since April 2014. The neurology specialist is managing the patient's multiple sclerosis treatment regimen. There have been possible MS flares in 2015 and 2017 that prompted the neurologist to order repeat MRI studies, which showed evidence of demyelinating disease with no active changes and cervical cord demyelinating plaques with a new lesion in the left pons, no active demyelination, and cervical spondylosis with severe left foraminal stenosis. Left C6 and C7 radiculopathy workup was advised but there is no documentation that this evaluation was ordered. Almost all of the neurology consultations were found in the EMR. The patient also saw a urology specialist for urinary incontinence on 8/19/15. The urology specialist initiated medication to treat the patient's sudden losses of urine and advised cystoscopy, renal US, and urodynamic studies. There is no evidence in the medical record that the urology procedures and tests had ever been done. The patient has developed mild hypertension for which she has recently been started on lisinopril, and she was given an appointment to the hypertension chronic care clinic. Fenofibrate was initiated at the 3/16/18 general medicine chronic care clinic; the rationale for this added medication was not documented. The patient's 10-year cardiovascular risk score was not done but calculated 10-year cardiovascular risk was determined to be 3.0%, below the threshold to initiate lipid therapy. The provider did not document why it had been determined that the patient warranted treatment, but the choice of medications would have been a statin, not a fibrate medication.

In summary, this multiple sclerosis patient has been seen regularly in the General Medicine chronic care clinic at LCC and by a St. John's SIU neurology specialist who manages the treatment of the patient's multiple sclerosis. MRIs have been done and medications provided as ordered by the neurologist. The neurologist ordered tests to evaluate cervical radiculopathy, but these tests were not done. A urology specialist was consulted to evaluate the patient's urinary incontinence. In 2015, the urologist recommended a variety of additional procedures including cystoscopy, urodynamic studies, and renal ultrasound; there is no evidence in the EMR that these tests/procedures were ever performed. When the patient developed hypertension, there was no reason that this additional chronic illness could not have been easily co-managed at the time of general medicine clinic appointments.

Women's Health

Methodology: Nurse practitioners were interviewed about the women's health screening practices. The Guidelines for Inmate (Female) Periodic Physical Exams were reviewed. The list of current pregnant patients and the records of pregnant women were reviewed. The records of patient-inmates were audited for PAP and mammogram screening records.

First Court Expert Findings

The First Court Expert noted that patients with or at high risk for women's health issues were not tracked in an organized way. Cervical cancer screening was not performed in a timely manner, high-risk patients were not screened as frequently as warranted, and abnormal Pap smears were not adequately followed up. The expert noted that the current staff (24 hours per week OB-GYN) assigned to the provision of women's health care was not adequate to meet the needs of the LCC population and the addition of a women's health nurse practitioner was justified.

Current Findings

We agree with the findings in the First Court Expert's report. We had additional findings that are as follows:

- At the time of the site visit there were 11 pregnant women at LCC.
- One pregnant woman has been in LCC for 64 days and has not yet been seen by the OB-GYN provider and her prenatal record has not been started. Prenatal labs, vital signs, Pap, and fetal ultrasound have been done. Prenatal vitamins and iron supplementation have been prescribed.
- Fourteen of 15 (93%) charts audited had a Pap smear that was done in the last three years as per IDOC protocol.
- Four of five (80%) charts audited of women over 45 years of age had a mammogram performed in the last two years as per IDOC protocol. In another record sample, 12 of 13 patients above age 50 were offered a mammogram.
- Two of the three (66%) HIV patient charts reviewed had a Pap in the last year or evidence of three consecutive negative annual Paps in medical record.
- The existing needs for female-specific care have not been adequately addressed in the past. Newly hired nurse practitioners are being assigned to women's health responsibilities. It was reported that the nurse practitioners will be soon be oriented by the OB-GYN provider to the provision of prenatal care. This would enhance the coverage of the prenatal clinic services. Additional provider staffing may be needed to cover the services needed by this large and high-risk female population, which also has a reception & classification center that requires gynecological screening of all patients.
- All providers do not have access to comprehensive online medical references at all clinical and administrative work areas.
- The nurse practitioners have not been trained to evaluate wet mounts of vaginal discharges and vaginal infections are treated presumptively. The single microscope is seldom, if ever, used.

The LCC women's health periodic physical exam guidelines recommend Pap smears every three years, without human papilloma virus (HPV) testing for women less than 30 years of age and with HPV testing for women over 30 years old. Pap smears can be stopped after age 65. Mammograms are to be done every two years beginning at 45 years of age through age 70. Pap smears are performed on all new admissions over 21 years of age as part of the reception and screening process and are updated per protocol at the annual physical exams. Mammograms are scheduled as indicated for patients over 45 years of age along with the annual physical appointment. The process to schedule annual physicals is as follows:

1. The Offender 360 IDOC program generates a list of all patients with birth dates in an upcoming month.
2. Nurse practitioners review the patients' medical records.
3. Women's health "to do" list is created.
4. Based on the "to do" list, appointments are scheduled with the two nurse practitioners.

Audits of 15 women's charts revealed that 14 (93%) have had Pap smears in the past three years. One patient had not had a Pap smear in over four years. Three women were found to have abnormal Pap smears with low grade squamous intraepithelial lesions (LGSIL) and human papilloma virus positivity. One had a colposcopy with a biopsy in November 2017 and is scheduled for repeat colposcopy in May 2018. Another had colposcopy and biopsy in 2014, with improvement to atypical squamous cells of undetermined significance (ASCUS) smears in 2016 and 2017. A third was found to have LGSIL in March 2018 and will have repeat studies done after the delivery of her child in late May 2018.

Charts reviews showed that three of four (75%) women over 45 years of age had a mammogram in the last two years. One additional patient under 45 years of age also had a mammogram when she was 38 years old. One 49-year-old woman had not yet had this screening test performed four years after she was eligible for a screening mammogram.

In a separate sample of 13 records randomly selected from a list of patients above age 50, in 12 of 13 cases women were offered mammograms. In the lone woman who was not offered mammogram screening, the patient was admitted to LCC in early April 2018 and the mammogram was not ordered at intake. In 11 of 12 cases in which mammogram was offered, they were either completed or refused. In the remaining case there was an equipment failure and the mammogram needed to be rescheduled. We reported this to the HCAU.

All of the prenatal care is provided by the OB-GYN specialist (approximately 50% FTE) who provides onsite service and consultation. The OB-GYN provider uses a paper antepartum/postpartum record to record patients' progress, tests reports, vital signs, fetal heart tones, uterine measurements, etc. This patient form is maintained in a binder in the ambulatory clinic. A copy of the record is sent to the delivering hospital. This record is not incorporated into the electronic medical record but should be. The OB-GYN provider was soon to be temporarily away from LCC; a nurse practitioner reported that the OB-GYN provider will soon be orienting the nurse practitioners to the provision of prenatal care to allow coverage during the specialist's absence. Colposcopy and cervical biopsy, cervical cryosurgery, obstetrical

Doppler ultrasonography, pelvic ultrasound (contracted service), and mammography are provided onsite.

There were 10 pregnant women at LCC at the time of the Experts' visit. The charts of four currently pregnant women were reviewed. Two have very high-risk pregnancies (recurrent deep vein thrombosis with pregnancy, gestational diabetes); both have been appropriately referred to and jointly managed with St. John's SIU Medical Center's maternal and fetal medicine (MFM) specialists. No MFM consultation reports were found in the antepartum record or the EMR on one of these patients. Another pregnant woman has had two previous c-sections and has been appropriately monitored. The fourth pregnant patient was admitted to LCC on 2/22/18. Prenatal tests, Pap smear, fetal ultrasound, and vital signs have been done. Prenatal vitamins and iron supplementation was prescribed. The first appointment with the OB provider was scheduled for 4/6/18, but was cancelled due to provider absence. As of 4/26/18, 64 days after admission to LCC, this patient has not seen the OB provider and the antepartum record has not been started. If additional providers (nurse practitioners) were trained to provide basic prenatal care, this patient would have been fully evaluated by this time.

There is a functional microscope, but it was dusty and appeared not to be in use. It was reported that the nurse practitioners had not been trained to perform wet mounts to identify yeast, bacterial vaginosis, and trichomonas vaginal infections and thus were not using the microscope. Not all providers at LCC have access to a comprehensive electronic medical references such as UpToDate.

In summary, the provider staffing is not adequate to provide the volume of clinical work at this large women's facility and reception center. In the absence of the OB-GYN provider, there are no providers trained to provide prenatal care. At least one of the nurse practitioners should be trained and regularly assigned to prenatal clinic. Not all offsite specialty consultation reports are being returned with the patient or retrieved by the LCC support staff; this should be addressed. Women with HIV are not being screened for cervical cancer as frequently as is nationally recommended. Most women are receiving Pap smears and mammograms in accord with IDOC and national guidelines. It appears that a few women are not consistently being screened as directed in the IDOC guidelines. The following chart summaries highlight the concerns and findings noted above.

Women's Health Charts

- This patient is a 35-year-old female with HIV and genital HSV.⁷⁹ Her last Pap smear was done on 7/28/15; the result was negative. No repeat or previous Pap tests were identified in the record. In summary, this HIV patient should be having annual Pap smears until three consecutive annual tests have been performed; then the interval can be increased to three years. LCC is not following national guidelines concerning the frequency of cervical cancer screening in this higher risk HIV patient.

⁷⁹ Chronic Care Patient #3.

- This patient is a 66-year-old whose problem list includes seizures, diabetes, and hypertension.⁸⁰ Mammograms done in 2014 and 2016 were both reported to be Breast Imaging Reporting and Data System (BIRAD) II. A Pap smear in 2014 was negative and ASCUS/HPV negative in 2016. In summary, this patient has, to date, had mammograms at intervals recommended in national and IDOC protocols. Even though she is older than 65 years of age, she should have another negative Pap smear before cervical cancer screening is no longer recommended.
- This patient is a 34-year-old pregnant female with history of DVT during previous pregnancies, pre-eclampsia in the past, diet-controlled diabetes in the past, tobacco use, and substance use.⁸¹ Her expected due date is 5/27/18. This patient was admitted to LCC on 3/9/18. The patient was pregnant seven times in the past and had DVTS with her pregnancies in 2010, 2012, and 2013, and at least one pulmonary embolus. She was listed as a high-risk pregnancy. She was treated with Lovenox (enoxaparin, subcutaneous blood thinner) during her prior pregnancies. Her intake Pap was read as LGSIL/HPV+; this abnormality had also been previously identified at some time in the past. The prenatal flow forms showed that the patient had seven visits with the LCC OB provider between 3/14 and 4/24/18. Prior to admission to LCC, ultrasounds at Northwestern Medical Center and Stroger Cook County Hospital revealed a single umbilical artery. Post entry to LCC, two additional ultrasounds (St. John's SIU Medical Center and LCC) revealed a normal fetus. The patient was referred to Maternal Fetal Medicine (MFM) at St. John's SIU Medical Center where she has had two, possibly three, visits to date, with two more visits prescheduled in May 2018. The visits are commented on in the prenatal flow forms, but consultation reports from St. John's MFM were not located in the EMR. The patient is scheduled for induction of labor on 5/21/18 at St. John's SIU Medical Center. In summary, this high-risk pregnancy has been closely monitored by the OB provider/team at LCC. Ongoing consultation with the MFM OB specialists at St. John's SIU Medical Center was initiated within two weeks of the patient's admission to LCC. Consultation reports from the specialist are not in the LCC EMR; this deficiency must be addressed and corrected.
- This patient is a 29-year-old pregnant female with diabetes who had taken insulin during previous pregnancies, and a psychiatric disorder.⁸² An ultrasound on 3/19/18 showed FHT 140 and a fetal age of 26 weeks +/- 4 days. The prenatal tracking form documented OB provider/team encounters on 3/9, 3/19, 3/23/18. The patient was seen at the St. John's SIU Maternal Fetal Medicine (MFM) by specialists on 4/2/18; insulin was changed to NPH 15U/am, 5U/pm and Lispro insulin 5U-6U-8U with the three meals. St. John's requested that capillary blood glucoses (CBG) be sent weekly for their review. On 4/6/18, the patient was admitted to the LCC infirmary for closer monitoring due to CBGs above 300. On 4/20/18, the infirmary provider noted that CBG's were still in the 200s

⁸⁰ Chronic Care Patient #5.

⁸¹ Chronic Care Patient #11.

⁸² Chronic Care Patient #13.

and increased the NPH insulin dosage to 20U/am and 10U/pm. Some improvement of CBG's were reported on 4/13/18. On 4/17/18, it was noted that CBG results were sent to St. John's SIU MFM service. The patient was again seen at St. John's MFM on 4/18/18; ultrasound showed FHT 148 and a fetal age of 31 weeks +/- 4 days. The MFM providers recommended that the glucose treatment goals were fasting blood glucose (FBS) <90 and post prandial <120. In summary, this pregnant patient with gestational diabetes was quickly placed under the care of the LCC OB provider and St. John's SIU MFM specialists. She is being appropriately tested and monitored to date. CBG results have been communicated at least once to the MFM specialists.

- This patient is a pregnant 21-year-old female with a history of tobacco use and possible mental health disorder.⁸³ Labs were ordered, blood pressure was normal, and prenatal vitamins and ferrous sulfate prescribed. From 2/28/18 to 3/13/18, the patient was placed on mental health crisis watch. On 3/6/18, onsite ultrasound revealed FHT 168 and a fetal age of 10 weeks +/-2 days. The OB provider appointment on 4/6/18 had to be rescheduled by the provider, but a Pap smear was done on this date. As of 4/26/18, the patient has not yet been seen by the LCC OB provider. Sixty-four days after intake, the prenatal tracking form has not yet been initiated and the OB provider has not examined this first trimester/early second trimester patient. In summary, this first/early second trimester pregnant patient has had prenatal labs and tests performed, fetal ultrasound done, prenatal vitamins and ferrous sulfate prescribed, and blood pressure monitored. However, 64 days after admission to LCC, this patient has yet to be evaluated by the OB provider who had to cancel one scheduled appointment. LCC now has three advanced practice nurse practitioners (NP); it would be in the best interest of patient care if at least one of the NPs was assigned to staff the prenatal clinic with the OB provider and acquire skills and experience in managing OB patients in the absence of the OB specialist.
- This patient is a 49-year-old female with multiple sclerosis and hypertension.⁸⁴ She has been incarcerated since at least 2004 and transferred to LCC when it opened in 2013-14. She had a normal Pap in 2014 but there have been no Paps in last four years. No mammograms have yet been done even though the patient is over the age (45 years old) when IDOC recommends starting mammography screening. In summary, LCC is not following the IDOC Pap and mammography screening recommendations, which recommend Pap smears every three years and mammography starting at 45 years of age.

Dental Program

Dental: Staffing and Credentialing

⁸³ Chronic Care Patient #14.

⁸⁴ Chronic Care Patient #15.

Methodology: Reviewed staffing documents, interviewed dental and other staff, reviewed the Dental Sick Call Log and other documents.

First Court Expert Findings

- LCC has two full-time dentists, two full-time assistants, and one full-time hygienist. This should be adequate to provide meaningful dental services for LCC's 2000 inmates.
- CPR training is current on all staff, all necessary licensing is on file, and DEA numbers are on file for the dentists.

Current Findings

We concur with the First Court Expert's findings that staffing is adequate. LCC has 2.0 dentist FTEs,⁸⁵ one full-time dental hygienist and three full-time dental assistants; an increase of one dental assistant.

Dental: Facility and Equipment

Methodology: Toured the dental clinic to assess cleanliness, infection control procedures, and equipment functionality. Observed intake screening and clinical care. Evaluated the quality of x-rays taken at intake. Reviewed compliance with radiologic health regulations.

First Court Expert Findings

- The clinic is small, with equipment that is more than 20 years old. Provider and assistant had very little room to work. If both chairs were in use, the providers could interfere with each other.
- Loose wires were strewn on the floor and plugged into a loose metal junction box, upright on the floor next to the unit. It interfered with movement and was a real safety hazard.
- Several areas of rusted metal were evident, and the cabinetry is worn. The chairs have torn fabric and are not up to contemporary infection control standards.
- Metallic surfaces were rusty and stained, and corners were worn and frayed, which impeded adequate surface decontamination and disinfection.
- The intraoral x-ray unit was inoperative, a deficiency that interfered with the provision of dental care.
- The Panelipse [panoramic] radiographic unit was old and faded and the quality of x-rays was poor.
- An EMR is in the early testing phase at LCC.
- The handpieces and instruments were adequate.
- There was a separate sterilization and laboratory room of adequate size with a large work surface and a large sink to accommodate proper infection control and sterilization.
- Laboratory equipment was in a separate corner of the room. The staff had an office with two desks.

⁸⁵ Two dentists work four eight-hour days and one dentist works two eight-hour days.

- At the time of the visit, two additional units were being installed in another room adjacent to the clinic area to be used for hygiene and prosthetics and has an extra chair to accommodate patient overflow, e.g., emergencies and examinations.

Current Findings

Dental facilities and equipment have improved since the First Court Expert's Report and are adequate. We concur with the First Court Expert and note that that since then, the loose wires have been secured, the EMR has been implemented, and the dental hygiene area has been completed. We identified current and additional findings as follows.

There are two dental units in the main clinic and two in the dental hygiene area. The dental hygienist's unit is not in the dental clinic but rather in a small room in a corridor that is not contiguous with the dental clinic, isolating the hygienist from clinic activity.

The two chairs in the main clinic are old, and one has torn upholstery which interferes with surface disinfection. The light stanchion of the other unit was salvaged from another facility and is mounted askew. In addition, the bracket table is unstable and cannot be maintained in place, posing a hazard to patients and staff.

There are only four functioning high-speed handpieces (drills). Since two dentists are working most of the time and handpieces must be sterilized between patients, this is insufficient, since there are always some handpieces in various stages of sterilization that are unavailable for use.

There is one functioning intraoral x-ray unit mounted near one of the dental units. The dental hygienist's operatory does not have an x-ray unit. As a result, the hygienist, who is accustomed to taking bitewing x-rays on her patients, cannot do so feasibly.

There is no stethoscope and sphygmomanometer in the clinic and when dentists want to measure blood pressure, they borrow them from Nursing.

Dental: Sanitation, Safety, and Sterilization

Methodology: Reviewed Administrative Directive 04.03.102. Toured the dental clinic and observed dental treatment room disinfection. Interviewed dental staff and observed patient treatment.

First Court Expert Findings

- The surface disinfection was performed between patients and was adequate. Protective covers were utilized on some surfaces.
- Instruments properly bagged, sterilized, and stored. Handpieces were sterilized and in bags.
- The sterilization procedures were adequate, and flow from dirty to clean was acceptable.
- Safety glasses were not always worn by patients.

Current Findings

Dental sanitation, safety, and sterilization are unchanged since the First Court Expert's Report and are adequate. However, we identified current and additional findings as follows. Surface disinfection performed between patients in the clinic was appropriate and protective covers were used on surfaces. Sterilization procedures and instrument flow were adequate. Instruments were properly bagged, sterilized, and stored. Patients did not always wear safety glasses^{86,87}. Sanitation at the intake dental examination was inadequate and will be discussed in the Initial Examination section, *infra*.

Dental: Review Autoclave Log

Methodology: Reviewed the last two years of entries in autoclave log, interviewed dental staff, and toured the sterilization area.

First Court Expert Findings

- A review of the past two year's sterilization logs showed that autoclaving was accomplished weekly and documented. They utilize a service from Henry Schein called Crostex that does the testing and maintains the results. A spread sheet of the results is available and provided annually. A biohazard warning sign was not posted in the sterilization area.

Current Findings

Autoclave Log maintenance is unchanged since the First Court Expert's Report and remains adequate. We agree with the First Expert's findings. The sterilization log was in order.

Dental: Comprehensive Care

Comprehensive, or routine care⁸⁸ is non-urgent treatment that should be based on a health history, a thorough intraoral and extraoral examination, a periodontal examination, and a visual and radiographic examination.⁸⁹ A sequenced plan (treatment plan) should be generated that maps out the patient's treatment. This plan should be updated after each treatment or examination.

⁸⁶ Why We Take Infection Control Seriously. UIC College of Dentistry. Viewed at <https://dentistry.uic.edu/patients/dental-infection-control>, viewed February 2, 2018 "We use personal protective equipment [...] **as well as provide eye protection to patients for all dental procedures.**" (emphasis added).

⁸⁷ Guidelines for Infection Control in Dental Health-Care Settings ---2003. MMWR, December 19, 2003/ 52(RR17):1:16; pp. 17-18. ("PPE [personal protective equipment] is designed to protect the skin and the mucous membranes of the eyes, nose, and mouth of DHCP [dental health care provider] from exposure to blood or OPIM [other potentially infectious materials]. Use of rotary dental and surgical instruments (e.g., handpieces or ultrasonic scalers) and air-water syringes creates a visible spray that contains primarily large-particle droplets of water, saliva, blood, microorganisms, and other debris. This spatter travels only a short distance and settles out quickly, landing on the floor, nearby operator surfaces, DHCP, **or the patient**. The spray also might contain certain aerosols (i.e., particles of respirable size, <10 µm). Aerosols can remain airborne for extended periods and can be inhaled" and "Primary PPE used in oral health-care settings includes gloves, surgical masks, **protective eyewear**, face shields, and protective clothing (e.g., gowns and jackets). All PPE should be removed before DHCP leave patient-care areas (13). Reusable PPE (e.g., clinician **or patient protective eyewear** and face shields) [...]"). Emphasis added. Moreover, protective eyewear prevents injury from objects dropped by the provider.

⁸⁸ Category III as defined in Administrative Directive 04.03.102.

⁸⁹ Stefanac SJ. Information Gathering and Diagnosis Development. In Treatment Planning in Dentistry [electronic resource]. Stefanac SJ and Nesbit SP, eds. Edinburgh; Elsevier Mosby, 2nd Ed. 2007, pp. 11-15, *passim*.

Methodology: Interviewed dental staff, reviewed dental charts of inmates who received non-urgent care randomly selected from Daily Dental Reports.

First Court Expert Findings

- A basic and essential standard of care in dentistry is that all routine care proceeds from a thorough, well-documented intra and extra-oral examination and a well-developed treatment plan, to include diagnostic x-rays. In none of the 10 records reviewed was any of this present.
- No comprehensive examination was performed, no treatment plans developed, and no hygiene care performed before routine care.
- No diagnostic x-rays for caries were available. Restorations were provided from the information from the panoramic radiograph and an inadequate screening exam. This radiograph is not diagnostic for caries.
- A periodontal assessment was not done, and oral hygiene instructions were not documented in the dental record as part of the treatment process.

Current Findings

Comprehensive care is materially unchanged since the First Court Expert's Report and we concur with the First Court Expert that it is inadequate. Moreover, we identified current and additional findings as follows.

Dr. Zielinski said that while he "likes to take bitewing x-rays every year" in private practice, he does not do so at LCC. The hygienist said that she would normally take bitewing x-rays; however, she does not have an intraoral x-ray unit in her operatory. To take x-rays, she would have to bring the patient to one of the dentist's chairs; however, this is not feasible since 1) typically, a dentist is seeing a patient and, 2) the dental hygiene operatory is separate from the dental clinic.

Biennial exams are scanty and of minimal clinical value. Neither x-rays nor periodontal probing are performed, and a sequenced treatment plan that involves periodontal treatment is not produced. Moreover, there is no documentation that a soft tissue examination for oral cancer is performed.⁹⁰

The dental hygienist completes Dental Hygienist Progress Notes after treatment. The form is organized in the SOAP format; however, it does not document Periodontal Screening and Recording, a standard of care for dentistry and dental hygiene.⁹¹ Furthermore, the assessment

⁹⁰ Appendix B shows the biennial examination form of Biennial Exam Patient #7 is typical of biennial exam entries. Other than a box indicating that treatment has not been requested, the examination is of little clinical value.

⁹¹ Stefanac SJ. (A panoramic radiograph has insufficient resolution for diagnosing caries and periodontal disease. Intraoral radiographs (e.g., bitewings) and periodontal probing are necessary), p. 17. Also, (Periodontal Screening and Recording (PSR), an early detection system for periodontal disease, advocated by the American Dental Association and the American Academy of Periodontology since 1992, is an accepted professional standard.), pp. 12-14. See American Dental Hygiene Association. Standards for Clinical Dental Hygiene Practice Revised 2016, pp. 6-9. (Periodontal probing is also a standard of practice for dental hygiene).

is general and does not indicate the location and severity of the periodontal problem. Consequently, there is no way to monitor disease progression or reversal.

Of 10 inmates who received comprehensive (routine) care, all had treatment plans; however, the treatment plans were below accepted professional standards, since the sequence of the prescribed care was not specified, and they were informed by neither bitewing x-rays nor periodontal probing. As a result, caries and periodontal disease were underdiagnosed.

Oral hygiene instruction (OHI) was documented only in conjunction with treatment by a dental hygienist and the two patients who were not treated by the dental hygienist had no documented oral hygiene instruction. The Dental Hygiene Progress Note in the electronic health record⁹² has several boxes corresponding to procedures that the hygienist can check: Scaling and Root Planing, Prophylaxis, Perio-Prophylaxis, Full Mouth Debridement, and Oral Hygiene Instruction.⁹³

The dentists were unable to provide the definitions the clinic uses for these procedures and referred me to the dental hygienist.⁹⁴ The hygienist said that when she records “scaling and root planing” it means that she removed some calculus with either hand instruments or an ultrasonic scaler and a “perio-prophylaxis” is a deeper scaling for patients who have periodontal disease. These are idiosyncratic definitions that do not comport with standard dental terminology.

Dental: Intake (Initial) Examination⁹⁵

Methodology: Observed intake screening process. Reviewed dental records of inmates that have been screened recently. Reviewed Administrative Directive 04.03.102.

First Court Expert Findings

- The screening examination was performed within 10 days of arrival, and the intra and extra-oral examinations were adequate. Panoramic x-rays were taken at the dental clinic and APHA priorities were designated.
- In none of the records were oral hygiene instructions included. The examiner explained orally and had written instructions available on how to access dental care.

⁹² Dental Hygiene Progress Note for Biennial Examination Patient #7 (Appendix C).

⁹³ American Dental Association procedure codes show that the definitions of scaling and root planing (D4341 and D4342) are clear and specify the scope of the procedure. This is not the definition used by the dental hygienist. In fact, her description more closely resembles the definition of an adult prophylaxis (D1110).

⁹⁴ This is problematic, since per the Illinois Dental Practice Act, dentists supervise dental hygienists and prescribe the treatments the dental hygienists provide. “General supervision means supervision of a dental hygienist requiring that the patient be a patient of record, that the dentist examine the patient in accordance with Section 18 prior to treatment by the dental hygienist, and *that the dentist authorize the procedures which are being carried out by a notation in the patient's record* [a treatment plan satisfies this requirement], but not requiring that a dentist be present when the authorized procedures are being performed.” Illinois Dental Practice Act 225 ILCS 25/4). Viewed at <http://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1296&ChapterID=24> 8/6/2018. Emphasis added.

⁹⁵ The First Court Expert Report describes the examination performed at intake screening as a “Screening Examination;” however, Administrative Directive 04.03.102 describes it as a “complete dental examination.” We use the terminology of the Administrative Directive and refer to the intake or initial dental examination as a complete dental examination.

- The room where the panoramic x-ray was taken did not provide sufficient warning to pregnant females that the area was potentially hazardous. Additionally, no consent form was developed that explained the potential hazards and gave permission for the x-rays to be taken on female inmates who might be pregnant.

Current Findings

The dental intake examination has not changed materially since the First Court Expert's Report. We agree with the First Court Expert that the intake exams were timely, oral hygiene instructions were not documented, and that warning signs were not posted in the panoramic x-ray area. However, we find the most important problem (not addressed by the First Court Expert) to be the overall inadequacy of the initial examination. We identified current and additional findings as follows.

The dental intake examination is performed in a small room that has a dental chair and light. A dental assistant asks health history questions and records responses. The dentist is gloved; however, he does not wash hands or use alcohol wipes between changing gloves. No disposable barriers were used on dental lights. Exams employ adequate light, a mirror, and an explorer. A dental assistant records the charting. Oral hygiene instructions are not provided, although a handout and oral instructions are provided relating to how to access dental care at LCC.

The dentist does not perform a thorough soft tissue examination.⁹⁶ For example, he does not visualize the lateral and posterior regions of the tongue,⁹⁷ a site of squamous cell carcinoma. This is especially important at LCC, since "[s]uspect lesions in females younger than the age of 50 years, with no history of alcohol or tobacco use, have a greater risk of malignant potential and often behave more aggressively. Lesions in this population of patients must be treated [and *a fortiori*, diagnosed] very quickly and aggressively."⁹⁸ Performing a thorough soft tissue examination is critical at the initial examination, since unless the inmate requests care within two years, her next exam will be biennial.⁹⁹

A dentist reviews the charting and panoramic x-ray later and records a treatment plan. This is inadequate because it is not informed by bitewing x-rays and a periodontal assessment. Twenty charts and panoramic x-rays of inmates who received oral screening examinations in the past month were reviewed. All the chartings were adequate; however, four x-rays (20%) were clinically inadequate.

⁹⁶ Stefanac SJ. ("Evaluation of head and neck structures for evidence of tissue abnormalities or lesions constitutes an important part of a comprehensive examination."), p. 12. See also Shulman JD, Gonzales CK. Epidemiology / Biology of Oral Cancer. In Cappelli DP, Mosley C, eds. *Prevention in Clinical Oral Health Care*. Elsevier (2008) ("Regular, thorough intraoral and extraoral examination by a dental professional is the most effective technique for early detection and prevention of most oral cancers. [...]") p. 41.

⁹⁷ Shulman and Gonzales, p. 31, Figure 3.7. This is generally done by holding the anterior portion of the tongue with 2x2 gauze and reflecting the tongue with a mouth mirror. This is a professional standard for an oral examination.

⁹⁸ Shulman and Gonzales, p. 41.

⁹⁹ This deficiency is compounded by the fact that dentists do not document soft tissue examinations at biennial exams. See section on Comprehensive Care, *supra*.

None of the 10 biennial examinations reviewed were informed by bitewing x-rays or periodontal probing. While seven patients¹⁰⁰ did not request treatment, there was no documentation of their treatment needs – if only to note that that no treatment was warranted. None of the patients who requested treatment had an updated treatment plan. There was no documented periodontal assessment or soft tissue exam for oral cancer. In short, the examinations are substantially below accepted professional standards.

Dental: Extractions

Methodology: Interviewed dental personnel and reviewed 11 dental and medical records.

First Court Expert Findings

- A tenet of dentistry is that all treatment proceeds from a well-documented diagnosis. In none of the 10 records examined was a diagnosis or reason for extraction included as part of the entry. Too often, the dental record includes only the treatment provided with no evidence as to why that treatment was provided.

Current Findings

Dental extraction care has improved since the First Court Expert's Report and is adequate. We concur with the First Court Expert's findings but note that unlike those findings, of 10 records of inmates who had extractions, all extractions were informed by adequate panoramic x-rays. This aspect of the program has improved substantially since the First Expert's Report. All progress notes documented the reason for the extraction. We did, however, find that none of the charts documented that the health history had been updated. All extractions were accompanied by signed consent forms.

Dental: Removable Prosthetics

Methodology: Reviewed eight charts of patients who received partial dentures in the past year that were randomly selected from the Prosthetics List and interviewed dental staff.

First Court Expert Findings

Removable partial denture prosthetics should proceed only after all other treatment recorded on the treatment plan is completed. The periodontal, operative [fillings], and oral surgery needs all should be addressed first.

- In none of the five records reviewed on patients receiving removable partial dentures were oral hygiene instructions provided.
- Periodontal assessment is never included, but in three of five records a prophylaxis and/or a scaling debridement was provided.
- Because there is no comprehensive examination, or any treatment plans documented in any of the records, it is almost impossible to ascertain that operative or oral surgery treatment is complete prior to fabrication of removable partial dentures.

¹⁰⁰ Biennial exam patients #1, 2, 3, 4, 5, 7, and 9.

Current Findings

Removable prosthetics care has not changed materially since the First Court Expert's Report. We agree with the First Court Expert's findings with respect to the inadequacy of the provision of removable prosthetics. We identified current and additional findings as follows.

Of six inmates who received partial dentures, all but one¹⁰¹ received oral hygiene instruction.¹⁰² All had extractions and fillings completed before the denture was fabricated. All but one inmate¹⁰³ had a periodontal assessment and received some treatment by a dental hygienist; however, the assessment was inadequate since it omitted periodontal probing (specifically, the PSR), a professional standard for dentistry and dental hygiene. Moreover, as discussed in the Comprehensive Care section *supra*, the putative procedures documented do not correspond to standard dental terminology; consequently, it is difficult to know what was done.

All had documented treatment plans; however, the Treatment Needed – Completed Restorations form produced by the EHR does not indicate the need for periodontal treatment, nor does it distinguish between the procedures that were planned and those that were completed.

Dental: Sick Call/Treatment Provision

Methodology: We interviewed dental staff, reviewed dental sick call logs, daily dental reports, and reviewed records of 10 inmates who were seen on sick call.

First Court Expert Findings

- Inmates access sick call through an inmate request form or via a direct call from a staff member if it is perceived to be an emergency. The dental hygienist reviews all request forms the following day from the collection of the forms, triages the complaints, and schedules per the dentists' direction or as soon as possible.
- By policy, all inmates who submit a request form are to be seen by dental staff within 14 days. LCC was not compliant with this policy. Toothaches or infections can be called in from anywhere in the institution and the inmate will be seen that same day.
- In none of the dental records reviewed was the SOAP format used; as a result, treatment was usually provided with little information or detail preceding it.
- Routine care was often provided at these appointments, always without a comprehensive examination or treatment plan.
- The LCC dental department does not keep request forms; consequently, it was difficult to review sick call records from more than a month ago.

Current Findings

¹⁰¹ Prosthetics Patient #4 did not receive documented oral hygiene instruction.

¹⁰² The only documented oral hygiene instruction in the charts I reviewed was at the dental hygiene appointment. Dentists do not document the provision of oral hygiene instruction.

¹⁰³ Prosthetics Patient #4.

The dental sick call process has changed since the First Court Expert's Report and is adequate. Consequently, our findings diverge from those of the First Court Expert. Moreover, we found that the SOAP format was used consistently, which represents an improvement in documentation.

Inmates access dental care by checking the 'Dental' column on the nurse sick call signup form. Since the form does not indicate the nature of the dental issue (e.g., the existence of pain), dental staff pick up the forms daily and interview the inmates. Those with urgent care issues are seen by a dentist, typically, the next business day, and the others are scheduled for a routine visit, typically, within three weeks.

Inmates may also submit sick call requests (sick slips) which they place in locked boxes in the housing areas. These forms are collected daily by nursing personnel. Since the forms state the problem, dental staff call in those with urgent care issues and schedule the others for a routine appointment as they do for referrals from nursing sick call.

Of 10 records of inmates who were seen on dental sick call, all had a diagnosis documented in the chart; however, none had the health history reviewed or updated at the visit. The nursing sick call lists from April 1 thru April 8 had 32 inmates requesting dental care, of which 10 (31%) were either no-shows or refusals.

Dental: Orientation Handbook

Methodology: Reviewed the Orientation Handbook.

First Court Expert Findings

Dental care is not addressed in the Offender Handbook and Orientation Manual. This omission should be addressed immediately. I was told that inmates were informed about the dental program and how to access care at the reception intake screening examination. This is inadequate.

Current Findings

Inmate orientation to dental care has not changed materially since the First Court Expert's Report. We concur with the First Court Expert with respect to the inadequacy of the Orientation Handbook. We identified current and additional findings as follows.

The Offender Handbook's only mentions of dental care are that dental care is available (p. 7) and that there is \$5.00 co-pay for non-emergency dental services for non-indigent inmates (p. 70). While the dentist provides an orientation to accessing dental care at the intake screening, the information should appear in the Orientation Manual.

Dental: Policies and Procedures

Methodology: Reviewed Administrative Directives that deal with the dental program. Interviewed dental staff. Reviewed dental charts. Toured dental clinical areas. Reviewed LCC organizational chart.

First Court Expert Findings

- The existing policy and procedure manual is old and outdated and does not address the current state of how the clinic is managed, nor does it fully address the areas concerned with managing a successful clinic.
- The policy addresses treatment plans, scheduling treatment, medications, dental care for inmates (directly out of the Dental Administrative Directive), copay, security of medication and needles, instruments, etc., infection control (from 1993), job description for dentists and dental assistants.
- It does a poor job of defining and directing the management and running of the dental program.

Current Findings

The Operations Policies and Procedures were last updated in 2016—after the First Court Expert report; however, we concur with the First Court Expert that the clinic management guidance is inadequate.

Oral Care Policy P-108, modeled on NCCHC Oral Care Policy P-E-06, specifies that newly admitted inmates will “will receive an oral screening during the Receiving Screening process and will include a visual observation of the teeth and gums noting any obvious abnormalities requiring immediate referral to the dentist.”¹⁰⁴ Furthermore, “[...] a complete dental examination will be conducted within 30 days of admission (which will normally be provided while the inmate-patient is at the intake center) and will include: 1) [a] review of the patient's oral history, 2) [v]isual assessment of intra and extra oral condition, 3) [x]-rays when deemed necessary by the dentist, 4) [p]atients ability to or limitations of mastication, 5) [c]harting of presence/absence and condition of teeth, 6) [s]pecified priorities for treatment, [and] 7) [t]he results of the dental examination will be recorded on a specific uniform dental record system approved by the American Dental Association.”¹⁰⁵

LCC is noncompliant with Policy P-108. First, while an oral screening is performed, a **complete** examination is not performed within 30 days of admission, **or for that matter, at any time**. The examination is far from being complete for reasons addressed earlier in this section; that is, inadequate oral soft tissue and periodontal examination, the absence of intraoral x-rays, and the absence of a sequenced treatment plan. Furthermore, the American Dental Association procedure codes are not used.

¹⁰⁴ *Id.* at ¶ II B.

¹⁰⁵ *Id.* at ¶ II D. The ‘uniform record system’ sponsored by the American Dental Association is the Code on Dental Procedures and Nomenclature. “In August 2000 the CDT Code was designated by the federal government as the national terminology for reporting dental services on claims submitted to third-party payers.” American Dental Association Dental Procedure Codes, 2015, p. 1.

Dental: Failed Appointments

Methodology: Reviewed dental sick call log. Interviewed dental staff. Reviewed daily dental reports.

First Court Expert Findings

- A review of monthly reports and daily work sheets revealed a failed appointment rate of about 17.5%. This is high and should be addressed. When asked, the staff related that it is often difficult for inmates to be released from the housing units to come to their appointment or there may be other program activities to prevent them from coming to the appointment. The staff did not feel it was a purposeful no-show on the inmates' part. A refusal form is signed if the inmate does not want to keep the appointment.

Current Findings

Failed appointments have not improved materially since the First Court Expert's Report. We concur with the First Court Expert that the failed appointment rate is too high. We identified current and additional findings as follows.

The nursing sick call lists from April 1 thru April 8 had 33 inmates requesting dental care, of which 10 (30%) were either no-shows or refusals.

Dental: Medically Compromised Patients

Methodology: Reviewed health history form and records from recent intake exams. Compared the health history in the dental chart to the medical problem list. Reviewed randomly selected charts of patients on the Chronic Care list for diabetes and anticonvulsant therapy.

First Court Expert Findings

- The dental record is maintained with the medical file, so all medical information is available to the dental staff from the medical record. The health history on the dental chart is updated at the time of what is called an "initial examination" at this institution. This is a modified comprehensive examination from which a treatment plan is developed.
- This health history is inadequate and does not directly address all the compromised medical conditions that may affect how dental care is provided. There is no system in place to "red flag" patients with medical conditions that can affect dental care. The health history in the dental chart is poorly developed and not very thorough.
- When asked, the clinicians indicated that they do not routinely take blood pressures on patients with a history of hypertension.

Current Findings

Documentation of the health history on medically compromised patients has not improved materially since the First Court Expert's Report. We concur with the First Court Expert that documentation of the health history of medically compromised patients is inadequate. We identified current and additional findings as follows.

Of eight patients with diabetes or receiving anticoagulant therapy, four¹⁰⁶ (50%) had dental treatment without an update of the health history. Of the six¹⁰⁷ diabetic patients, none had documented periodontal probing. Dentists neither properly assess periodontal disease nor develop an **explicit** treatment plan to address it.¹⁰⁸ Dentists are inconsistent in updating the health history at clinical encounters.¹⁰⁹

Dental: Specialists

Methodology: Interviewed dental staff, reviewed CQI documents, and reviewed dental charts of inmates who were seen by an oral surgeon.

First Court Expert Findings

Dr. Frederick Craig, an oral surgeon, is available on an as needed basis, usually once a month. He was scheduled for the near future to see a group of patients. A review of these consultation requests revealed that they were all referred to the oral surgeon for appropriate reasons. All were for difficult extractions and removal of wisdom teeth that were beyond the scope of the dentists' practice. Dr. Craig is used by several other IDOC institutions. Pathology services will be the same as for medical pathology. They will give the specimen to the appropriate medical person for processing.

Current Findings

We concur with the First Court Expert that oral surgery consultations are adequate. Unlike the finding by the First Court Expert, an oral surgeon does not provide care at LCC; rather, patients requiring oral surgery services that cannot be provided by the dental department are referred to a local oral surgery practice. This requires the approval of the Wexford Regional Medical Director through a process referred to as "collegial review." The reviewer for oral surgery consultations is Dr. Karanbir Sandhu, who serves on a part-time basis as a Prosthetic Advisory Dentist. Dr. Sandhu is neither an oral surgeon, a specialist in prosthodontics, or any other dental specialty.

Dental: CQI

Methodology: Reviewed CQI minutes and reports. Interviewed dental staff.

First Court Expert Findings

The dental program only contributes monthly dental statistics to the CQI Committee. No CQI study was in place at the time of this review. A recent mission change at LCC allowed only two months of minutes to be reviewed.

Current Findings

¹⁰⁶ Medically Comprised patients #1 (anticoagulant), #2 (diabetes), #3 (diabetes), and #8 (diabetes).

¹⁰⁷ Medically Compromised patients #2, 3,4, 5, 6, and 7.

¹⁰⁸ It appears that dentists refer patients to the hygienist without an appropriate diagnosis and prescribed treatment plan and the dental hygienist determines the treatment *sua sponte*. See footnote 95 *supra*.

¹⁰⁹ For example, Medically Compromised Patient #1 (10/30/17); Patient #2 (7/14/16); Patient #8 (3/23/17 biennial exam).

We concur with the First Court Expert that the dental CQI program is inadequate. Moreover, it has not improved materially. We identified current and additional findings as follows.

As noted by the First Court Expert, there were no CQI studies ongoing. The 2017 Annual Governing Body Report reported a quality improvement study on “[t]he time frames for dentures start to finish including healing. Is it within 3 months?”¹¹⁰ There were neither recommendations nor a planned follow-up. The study was, at best, trivial. Given the inadequacy of the clinical aspects of the dental program described in this report, a ‘study’ of how long it takes to fabricate a denture ignores far more relevant issues such as inadequate health histories, inadequate diagnosis of periodontal disease, and failure to use intraoral x-rays.

The dental service reports the total patients seen, the total procedures, backlogs and wait times, and number of referrals to an oral surgeon.¹¹¹ In addition, the monthly and annual total treatments.¹¹² The number of failed appointments was not reported.

Internal Monitoring and Quality Improvement Activities

Methodology: Interview facility leadership and staff involved in quality improvement activities. Review CQI Committee meeting minutes, including the Annual Meeting minutes.

First Court Expert Findings

The First Court Expert found that the minutes showed no effort to engage in quality improvement activity. The minutes consisted only of data collected on a variety of services. There was no documented discussion, analysis, or effort to improve quality.

Current Findings

We do not completely agree with the First Court Expert’s finding that the LCC CQI minutes showed no effort to engage in quality improvement activity. While the minutes mostly consisted of data collection on a variety of services, there were attempts on a few studies to evaluate for quality of services. However, these efforts fall short of demonstrating an effective CQI program. Largely, we view this as not having staff dedicated to quality, not understanding methodologies of performing quality studies, and not making quality improvement a system-wide program goal.

LCC does not have a CQI coordinator; the HCUA acts as the CQI coordinator. But her responsibilities are so wide ranging (HCUA, regional coordinator, CQI coordinator, infection control nurse, and nurse supervisor) that she is not effective in this role. LCC does not have a CQI plan specific to LCC. It merely paraphrases or repeats verbatim sections of the AD on CQI. This gives no indication of the CQI plan for LCC the upcoming year and is not a plan.

¹¹⁰ Annual Governing Body, Logan Correctional Center. July 19, 2017, p. 25.

¹¹¹ Annual Governing Body, Logan Correctional Center, July 19, 2017, p. 299. (Annual governing 2017-2.pdf).

¹¹² For example, fillings, extractions, dentures, biennial exams, intake screenings, panoramic x-rays. Id. p. 301.

The First Court Expert was critical of the CQI program and found that there was no effort to engage in quality improvement activity. We found that there was an effort to engage in quality improvement, but the studies that were done either lacked understanding of how to perform a quality study or used the quality study as a proxy for supervision as opposed to an effort to create a systemic improvement. There were eight CQI studies pertaining to the medical program.

Like other facilities, there was a misunderstanding of what outcome studies are. Five studies were listed as being outcome studies. Clinical outcomes are end point measures of health status such as mortality, hospitalization, an HbA1C level of 7 or less, or normal blood pressure. An outcome study measures interventions based on the ultimate outcome measure. An example would be to study the effect of colorectal cancer screening on colorectal cancer mortality or the effect of increasing the interval of chronic clinic visits on obtaining a normal blood pressure. The studies listed as outcome studies were:

1. Whether ordered injections were given.
2. Are glasses received within six weeks?
3. Whether patients discharged from the infirmary were evaluated within 14 days.
4. Did a provider see a patient within five days after a medical furlough?
5. Does the Medical Director sign off on injury reports?
6. Whether nurse referrals to providers were medically indicated.

None of these includes a clinical outcome. These are all performance measures which assessed whether staff were performing their jobs. These are measures that are useful to analyze with respect to whether operations are performing as expected. However, they are not outcome studies. One study, signing off on injury reports, was listed once as a process study and once as an outcome study.

One study, listed as a process study, was actually an outcome study. This study asked a question; did HbA1C values improve at the next clinic after education was provided? An intervention was studied as to whether it could affect an outcome – the HbA1C level. This study was a credible study and posed a valid hypothesis. It attempted to evaluate the value of current educational efforts to improve diabetic control. Over two months of study, the finding was that 11 patients had the same HbA1C level after education, 49 patients had an improved HbA1C, and 43 patients had worse HbA1C values. These findings appear to demonstrate that education had no effect on HbA1C values. However, there was no investigation of the reasons for the results associated with this finding. Only the data was given. This was an interesting finding but there was no study to determine why this result occurred. Was the study flawed? Does education have no value? Was the education flawed? This study can have value, but it was not thoroughly executed, apparently due to a lack of ability to conduct the analysis.

The remainder of the 2016-17 annual CQI report mostly gives statistics that have no inherent value with respect to quality improvement. This is consistent with comments of the First Court Expert, who stated that minutes consisted only of data collected on a variety of services. The monthly meeting minutes consist only of data without any analysis or study.

We also note that this facility does not perform some required studies as required by the IDOC AD, including:

- There is no evidence of primary source verification of physician credentials.
- There is no evidence of evaluation of quality or appropriateness of 100% of offsite referrals.
- Hospitalizations are listed but not reviewed with respect to quality.

We also note that there is no mortality review. The facility Medical Director writes a brief summary of the death but there is no analysis of death with a perspective of attempting to identify correctable problems in order to reduce preventable deaths or reduce problems that place patients at risk of harm.

We evaluated one death from LCC.¹¹³ This is discussed in greater length in the mortality review section of this report. However, this patient had several problems. The patient had known pancreatic mass identified at Cook County Jail that was thought to be due to pancreatic cancer. The patient had significant abdominal pain and on transfer was on approximately 90 mg of morphine for pain control. On transfer to LCC, the patient had a pending follow up with the gastroenterologist at Stroger Hospital. Instead of following up with a gastroenterology consultation and obtaining or repeating a CT scan, LCC treated the pancreatic mass as a benign lesion and took no diagnostic action. Also, the patient was treated with only one Tylenol #3 tablet three times a day, a pain medication reduction of approximately 80%.

About a month after arrival to LCC a doctor obtained a tumor marker test that indicated a high probability that the patient had pancreatic cancer, a diagnosis suspected at Cook County Jail. The doctor ordered a CT of the abdomen and a routine GI consultation. The GI consultation did not occur until 3/21/17, four months after transfer from Cook County Jail. The biopsy was not done until 4/14/17, five months after transfer from Cook County Jail. The diagnosis was delayed for five months and should have been accomplished within a month of transfer.

The patient was undertreated for her increasing abdominal pain from the metastatic pancreatic cancer throughout her incarceration at LCC, but especially over the last two months of life. Despite being undertreated for pain throughout her five months at LCC, during the last two days of life the patient was treated with palliative sedation without a documented discussion in the medical record with the patient of what palliative sedation is or a consent for this process. The patient, given only the equivalent of 15 mg of morphine during the prior months, was given 120 mg morphine a day and 2 mg of a benzodiazepine every two hours by intravenous infusion during the last two days of life. This was a huge increase of dosage and was apparently unrelated to existing pain symptoms of the patient. Palliative sedation is a last resort measure at the end of life to relieve severe and refractory symptoms. However, treatment in excess of symptoms can be problematic, especially if the patient does not agree to the excess treatment. There can be ethical concerns using palliative sedation, including that it hastens death or is a

¹¹³ Patient #21 Mortality Reviews.

form of euthanasia.¹¹⁴ For this patient, the lack of adequate pain control with the sudden apparent excessive use of morphine with a sedative drug raises ethical concerns about the purpose of this prescription. Despite this, there was no documented discussion with the patient or consent of the patient that we could find.

These issues bring up three concerns with care of this patient that should have been identified in the mortality review and should have resulted in a quality investigation as to why the problem occurred with a goal of fixing the problem.

- There was a significant delay in continuation of the work up of a significant illness. It took five months to make a diagnosis that should have taken much less time. There should be a review as to why this occurred.
- There was a deficiency of pain management over the five months of incarceration. The patient complained repeatedly of pain and endured pain unnecessarily over several months despite having a likely untreatable cancer. The program should evaluate why pain management was inadequate and review how pain is managed.
- The patient was treated with palliative sedation without documented informed consent, which gives the impression of hastening death or engaging in euthanasia. The program should review their end-of-life procedures to ensure that patients are treated with respect and dignity.

The death summary documented that the patient “wish of DNR and the more recent wish of palliative care” could not be found in the medical record. The Mortality Review Worksheet found that there was no way to improve care. We disagree.

¹¹⁴ From section on Palliative Sedation from UpToDate an online electronic medical text.

Recommendations

Leadership, Staffing, and Custody Functions

First Court Expert Recommendations

1. Seek approval and fill the Director of Nursing position as soon as possible. *We agree with this recommendation.*

Additional Recommendations

2. LCC needs to fill its physician positions instead of converting them to nurse practitioner positions.
3. A staffing analysis should be done to determine whether staffing is adequate for this facility.
4. Nursing supervision needs to increase so that there are always supervisory nurses present.
5. The IDOC needs to fill its central region nurse coordinator position so that the HCUA can function full time at LCC.
6. LPNs should perform within the scope of their licenses.
7. Policies should be reviewed and revised as needed.

Clinic Space, Sanitation, and Support Services

First Court Expert Recommendations

1. Implement a nurse call system for each infirmary patient. *This recommendation has been addressed with the installation of battery powered nurse call devices in all infirmary patient rooms with the exception of the crisis beds that are within sight and/or sound of the nursing station.*

Additional Recommendations

2. Develop and implement a plan to daily monitor and document negative air pressure readings when the infirmary's negative pressure room(s) is occupied for respiratory isolation and otherwise on a weekly basis.
3. Create at least one additional provider exam room(s) in the ambulatory clinic in order to accommodate all of the current (and future providers) at the same time.
4. Implement a plan to assure that all medical equipment and devices have documented annual safety inspections.
5. Replace the existing colposcope.
6. Purchase sufficient quantity of additional automated external defibrillators (AED) in order to place AEDs in the infirmary, ambulatory clinic, reception and screening, ADA housing unit, emergency response bag(s) and other high-risk areas on the LCC campus.
7. Replace the deteriorating vehicle that is used to transport clinical staff and equipment to emergencies on the LCC campus.

8. Enforce and monitor the existing policy to keep all emergency bags sealed and inspect and restock emergency bags that have been unsealed.
9. Expand the scope of the current safety and sanitation rounds or create separate rounds to include focused inspections of clinical areas including clinical equipment, exam tables, negative pressure, expired supplies, and medications, etc. and report the findings to the Quality Improvement committee.

Medical Reception

First Court Expert Recommendations

1. There should be a space on the intake physical form to document the breast examination.
2. There must be a more appropriate space where a nurse can interview a patient for the nurse screen or a nurse practitioner for the history and physical in which there is no auditory disturbance.
3. A system must be set up to insure that appropriate and timely follow-up from the reception process does occur.

We agree with these recommendations.

Additional Recommendations

4. Repair or replace equipment in disrepair (e.g., examination table) and purchase needed medical equipment (e.g., microscope, large blood pressure cuff).
5. Providers should order chronic disease and other essential medications on the day of the patient's arrival. Ensure that patients receive the first dose within 24 hours or sooner as clinically indicated (e.g., insulin for diabetics).
6. Nurses should perform and document urine pregnancy screening on all newly arriving inmates except those who are menopausal and/or documented tubal ligation or hysterectomy.
7. In addition to performing a past medical history, providers should perform a review of systems (ROS) for chronic diseases to determine urgency of referral to the chronic disease program.
8. Providers should document the patient's medical conditions onto the problem list, including a history of TB infection and previous surgeries.

Nursing Sick Call

First Court Expert Recommendations

1. Develop a plan to implement an all "RN" sick call process.
2. In the X-house, develop and implement a plan to conduct a legitimate sick call encounter, including listening to the patient complaint, collecting a history and objective data, performing a physical examination when required, making an assessment, and formulating a plan of treatment, rather than the current practice of talking to the patient through a solid steel door and basing any treatment on the conversation only.

3. Per Office of Health Services policy, assure all sick call encounters are documented in the Subjective-Objective-Assessment-Plan (SOAP) style.
4. Develop and implement a plan to assure Office of Health Services approved, pre-printed treatment protocols are used at each sick all encounter.
5. Develop and implement a plan of education for all nursing staff to address negative attitudes towards inmates.
6. Develop and maintain logs for sick call.
7. Develop and implement a plan to ensure that daily wellness checks and the weekly nurse practitioner rounds are documented in the segregation log and in the inmate specific medical record if any treatment is provided.
8. Develop and implement a plan to conduct the daily segregation wellness checks between the hours of 0700 and 2300.

We agree with these recommendations.

Additional Recommendations

9. Staff collecting sick call sign-up sheets at night should leave a new sheet, so inmates are able to sign-up 24 hours per day.
10. Inmates in segregation should be able to sign-up for sick call in the same manner as in non-segregation and not require the officer to enter the inmate's name.
11. Officers must escort all inmates being evaluated for sick call to an adequately equipped examination room that provides privacy and access to handwashing.
12. Nurses should document notification to medical providers and the provider's response to the notification.
13. Medical providers should examine patients requiring a medical diagnosis and document the examination in the medical record. Providers should schedule patients for follow-up as clinically indicated.
14. Health care leadership should perform CQI studies regarding the high rates of no shows, or failure of correctional officers to escort inmates to medical appointments.
15. If health care staff are unable to see all sick call patients within one day, consider returning to a written health request system that enables staff to triage and see patients with urgent requests.
16. Revise the Offender Orientation Manual to reflect actual access to care practices.
17. Health care leadership should develop and monitor quality indicators associated with each step of the sick all process.

Medical Records

First Court Expert Recommendations

1. There should be no loose filing inside the health records. Medical records staff should adopt a "touch it once" philosophy when it comes to filing loose documents.
2. Health service request forms should be filed in the health records.

These recommendations are no longer pertinent because of the partial implementation of an electronic medical record.

Additional Recommendations

3. An electronic medical record should be fully implemented.
4. The record should be unified to include prenatal care documents in the electronic medical record.
5. Sufficient devices need to be provided in all clinical areas that accommodate the possible number of simultaneous users.
6. The practice of using default aged vital signs should be stopped.
7. Providers should be responsible for entering problems into the problem list. Every patient should have an updated problem list that is accurate.
8. All hospital discharge summaries, specialty test reports, and consultation reports need to be available in the medical record.
9. The program needs to be able to track immunizations in the electronic record.
10. The program needs to have the capacity to obtain data from the electronic record for the purposes of quality review.

Urgent/Emergent Care

First Court Expert Recommendations

1. A system of nursing supervision with feedback must occur so that errors with regard to the adequacy of the assessment or the appropriateness of the clinical decision making are reduced substantially.
2. The administrator should develop a log that can be used to track unscheduled offsite services. The log should have the time and date, patient identifiers, the presenting complaint, what the disposition was in terms of being sent offsite and whether the reports from the offsite service are retrieved.
3. There should be a method to track the follow-up visits with the primary care clinician and whether they documented the discussion with the patient of the findings and plan based on the offsite service report.

We agree with these recommendations. The second recommendation has been resolved.

Additional Recommendations

4. The program needs to develop a means of reviewing the quality of clinical care with an aim to preventing unnecessary hospitalization and preventable clinical errors.

Specialty Consultations

First Court Expert's Recommendations

1. The policy should require that patients returning from scheduled offsite services are brought through the clinic area where a nurse receives the paperwork, interviews the patient, and ultimately insures that a timely follow-up visit with the primary care clinician does occur. *We agree with this recommendation.*

Additional Recommendations

2. The current system of “collegial review” should be abandoned on the basis of patient safety.
3. The program needs to monitor underutilization. All patients in need of specialty care need to receive it. We noted so many cases of patients who were either not referred or denied referral that underutilization was systemic and widespread. A root cause analysis needs to be completed regarding this and it needs to be corrected.
4. The IDOC should establish a tracking system to be used for monitoring the timeliness of specialty care. This should not be maintained by the vendor.
5. Quality of care for those needing offsite care needs to be monitored. The current system of monitoring fails to identify existing morbidity that results from the specialty care process.

Pharmacy and Medication Administration

First Court Expert Recommendations

The First Court Expert’s report contained no recommendations regarding the pharmacy and medication administration. *We do not agree with this assessment, as this review demonstrated systemic issues regarding pharmacy and medication management.*

Current Recommendations

1. A sanitation/disinfection schedule should be established for the medication room and staff assigned to monitor completion of sanitation activities, including scheduled cleaning of refrigerators.
2. Pharmacy inspections should be more accurately performed to identify expired medications and unlabeled open vials.
3. Eliminate the process of transferring medications from properly dispensed medication blister packs into white envelopes that are improperly labeled. Nurses should administer medications from pharmacy-labeled blister packs maintained in medication carts that are transported to the chow hall.
4. Medication administration records should be brought to medication administration.
5. Medication carts should contain supplies such as small medication cups and hand-sanitizer.
6. The medication administration process should be modified. Nurses should:
 - a. Wash their hands prior to medication administration and use hand sanitizer during medication administration (e.g., after every fifth patient or if they contaminate their hands in any way);
 - b. Positively identify patients with two identifiers, including the patient’s ID badge and one other (e.g., date of birth). Have the patient state their name as they approach the nurse;
 - c. Compare the MAR against medication blister packs to ensure the orders match.
 - d. Pour medications into a cup and give it to the patient without touching the patient. Have the patient dispose of the cup in the presence of a nurse or officer;
 - e. With the assistance of officers, perform oral cavity checks to ensure ingestion, preferably using a penlight;

- f. Document administration or refusal of medication onto the MAR at the time medication is offered to the patient.
 - g. For medication administration in segregation, consider establishing a secure medication room for storage of a medication cart and MARs. Nurses would transport the medication cart and MARs into segregation/reception and inmates line up to receive medications.¹¹⁵
- 7. All medication orders should be transcribed onto a MAR, including medications ordered by a dentist.
 - 8. Nurses or medical providers should document administration of all medications at the time they are administered to the patient.
 - 9. All medications, including KOP medications, should be administered or delivered by licensed and trained personnel.
 - 10. Healthcare leadership should retrain nurses regarding the procedure for transcribing and discontinuing medication orders.
 - 11. Nurses should refrain from defacing previous medication orders on the MAR as a short cut for transcribing new orders.
 - 12. Nurses should document discontinuation of previous orders and write new orders on a separate entry on the MAR.
 - 13. Nurses should document administration status for each scheduled dose of medication at the time of administration.
 - 14. Medical records personnel should timely scan patient MARs into the EMR within five business days of the end of each month.

Infection Control

First Court Expert Recommendations

Develop and implement a post-description for an infection control nurse.

- 1. Assign a specific RN to the responsibilities of infection control.
- 2. Develop, implement, and maintain a plan to assure the proper laundering of infirmary bedding and linens.

We agree with these recommendations.

Additional Recommendations

- 3. Health care leadership should establish, implement, and monitor a schedule for sanitation and disinfection activities in all areas where health care is delivered.
- 4. All torn and cracked outer protective coverings of infirmary beds, wheelchairs, examination tables and gurneys should be repaired or replaced to permit adequate infection control.
- 5. An analysis should be performed of infectious/communicable disease statistics, including prevalence of TB, HIV and HCV infection among newly arriving inmates.

¹¹⁵ When we went into segregation, several inmates were out of cell and congregating at tables, versus a policy that prohibits inmates from interacting with others.

6. Track and report skin infections due to all pathogens, not just MRSA, including infestations with scabies or body lice.
7. Infection control and CQI meeting minutes should analyze communicable diseases (e.g., MRSA) to determine whether there are clusters of infections occurring in certain housing units.
8. Fully train porters about blood borne pathogens, the proper methods of cleaning and sanitizing clinical areas, and initiate appropriate vaccinations before they are assigned to clean and sanitize patient rooms in the infirmary. The training should be documented and maintained in the porters' medical record.
9. Consider adding hepatitis A vaccination to the currently recommended Hepatitis B vaccination for all porters.
10. Monitor all sick call areas to assure appropriate infection control measures are being used between patients i.e., use of paper on examination tables which is changed between patients or a spray disinfectant is used between patients
11. Develop and implement a plan to monthly monitor all patient care associated furniture, including infirmary mattresses and exam tables, to assure the integrity of the protective outer surface with the ability to take out of service and have repaired or replaced as needed
12. Replace the cracked wall tiles in the ADA housing unit's shared shower room that interfere with proper cleaning and sanitation and create infection control hazards for both patient-inmates and medical and correctional staff.
13. The current tuberculosis skin test should be replaced with interferon gamma testing methodology.

Radiology Services

First Court Expert Recommendations

The First Court Expert had no recommendations concerning the radiology services

Current Recommendations

1. IDOC and the health care vendor must jointly contact the Illinois Emergency Management Agency (IEMA) and Occupational Safety and Health Administration (OSHA) to review the reported decision that IDOC x-ray technicians do not need to use radiation exposure monitoring devices (dosimeters) while working in the IDOC radiology suites as outlined in Illinois Administrative Code 32 -340 510 and 520. This current practice is not in alignment with the radiation safety practices in the community.
2. Contract with a radiation safety expert to assess the safety for the panorex unit's current location in an unleaded interior corridor adjacent to the radiology suite without a shielded area for the technician to stand when panorex films are being taken.

Infirmary Care

First Court Expert Recommendations

1. More bed space is needed in the infirmary.
2. Rethinking the physical plant to create a more therapeutic, less chaotic environment would be beneficial.
3. Develop and implement a plan to insure 24/7 RN staffing.
4. Implement a nurse call system for all infirmary patients.
5. Develop, implement, and maintain a plan for organization of infirmary medical records including but not limited to:
 - a. the use of the infirmary record.
 - b. permanent filing of all documents in the record.
 - c. chronological filing of all documentation.
6. Develop and implement a plan of education for staff including but not limited to:
 - a. Per IDOC Office of Health Services policy, documentation to be provided in the Subjective-Objective-Assessment-Plan (SOAP) format.
 - b. all documentation to be provided chronologically as to date and time.
 - c. documentation of vital signs as ordered by the physician
 - d. physician and nursing admission and discharge documentation required for all infirmary patients.

Since the First Court Expert's visit, the majority of the medical record related recommendations have been addressed by the implementation of an EMR in all clinical areas of LCC including the infirmary. We note that there are insufficient devices on the infirmary so the number of staff in the infirmary do not have access to a device on the infirmary resulting in having to go off the unit to write a note or review a record. This is addressed in the medical records sections. We also note that the use of dated vital signs needs to be stopped. All episodes of clinical care need current vital signs. This is also addressed in the medical records section. Nurse call devices have been installed in all infirmary patient rooms with the exception of the crisis beds which are within sight and sound of the nursing station and the infirmary bed space was now adequate. However, an occasional infirmary shift is still cover by LPNs.

Additional Recommendations

7. Develop a plan to shift anticoagulation treatments from Vitamin K Antagonists (warfarin) to newer types of anticoagulants that do not require frequent ongoing lab testing to determine the adequacy of anticoagulation.

Chronic Care

First Court Expert Recommendations

1. Consider assigning the Medical Director to the poorly controlled chronic disease patients, as this is clearly one of his strengths.
2. There should be a comprehensive tracking tool to monitor important indicators for this at-risk population. This tool should be used to identify areas of poor performance in the program to target interventions to improve quality.

3. The chronic disease nurse should rarely if ever be pulled to other duties. This position should be filled with a carefully chosen individual to actively track this at-risk population.
4. Patients should be seen according to their degree of disease control rather than the calendar month and all chronic diseases should be addressed at each chronic care clinic visit. These are statewide policy issues.
5. Patients with active women's health issues should be tracked in an organized manner, perhaps in a chronic disease program.
6. Patients with HIV infection should have yearly cervical cancer screening.

We agree with these recommendations. Some of these recommendations have been addressed by the fulltime assignment of a nurse to coordinate and manage the scheduling of the chronic care patient appointments and the implementation of the IDOC 360 program and the EMR to assist with scheduling, tracking, and statistical reporting of chronic care clinics and annual physical exam clinics.

Additional Recommendations

7. Providers seeing patients with chronic diseases need to be trained in primary care. When care needs exceed the training of the primary care provider, patients need to be referred to a higher level of care.
8. Initiate a process to manage all chronic care diagnoses in a single chronic care appointment. This should be done for all conditions unless the patient is being managed in a specialty clinic, e.g. HIV clinic, hepatitis C treatment clinic, pre-natal clinic, etc.
9. Revise the current practice of not rescheduling chronic care patients who refuse a chronic care visit until the next disease-specific chronic care clinic (four to six months later), reschedule these individuals based the status of their clinical problem, and implement a process to monitor and track the status of these patients during the many months before their next appointment.
10. Implement and utilize current Center for Disease Control (CDC) age-based and disease-based standards for the administration of adult immunizations.
11. Implement and utilize current United States Preventive Services Task Force (USPSTF) guidelines for screening adults for cancer and other conditions (abdominal aortic aneurysm, etc.).
12. Calculate and document the 10-year cardiovascular risk score on all appropriate adults to assist with the decision and timing to initiate preventive HMG-CoA reductase inhibitors (statins).

Women's Health

First Court Expert Recommendations

The First Court Expert had no recommendations.

Current Recommendations

1. Improve provider staffing.

2. Ensure that at least one onsite full-time providers is trained and can substitute for prenatal care when the obstetrician is unavailable.

Dental Program

Dental: Staffing and Credentialing

First Court Expert Recommendations: None.

Current Recommendations

1. Dental staffing should be reviewed after dentists incorporate intraoral x-rays and periodontal probing into their practice.

Dental: Facility and Equipment

First Court Expert Recommendations

1. The space that is used for the clinic proper and houses the two main dental units is too small to allow efficient care flow and any sense of privacy. Enlargement of this space should be considered for efficient care delivery and safety considerations. *We agree with this recommendation; however, we acknowledge that this is not feasible given the physical constraints of the clinic.*
2. All electric outlets should be wall-mounted or protected by the cover for the junction box at the foot of the chair. Loose wires should be neatly arranged and out of traffic flow. *This has been done; consequently, the recommendation is moot.*
3. All the units, chairs, and cabinetry should be replaced, and surface areas should be better able to accommodate disinfection. *We agree with this recommendation.*
4. Replace the radiograph unit in the clinic immediately with a wall-mounted unit capable of digital radiography. *We agree that the wall-mounted unit should be replaced; however, the replacement should be mounted **between** the dental chairs so it can be used by both dentists.*
5. The Panelipse radiograph unit should be replaced. This is critical for a reception center. *We agree with this recommendation.*

Additional Recommendations

6. An intraoral x-ray unit should be installed in the dental hygienist's operatory immediately.
7. The dental clinic should purchase four high-speed handpieces to supplement the four currently in use.
8. All new dental x-ray units should be digital.

Dental: Sanitation, Safety, and Sterilization

First Court Expert Recommendations

1. The loose metal junction box on the floor should be wall-mounted where it does not interfere with traffic flow. Electric cords should be neatly arranged. *This problem has been resolved; consequently, the recommendation is moot.*

2. Patients should always wear eye protection during treatment. This is important for patient safety. *We agree with this recommendation.*
3. A biohazard warning sign should be posted in the sterilization area. *We agree with this recommendation.*

Additional Recommendations: None

Dental: Review Autoclave Log

First Court Expert Recommendations: None.

Additional Recommendations: None.

Dental: Comprehensive Care

First Court Expert Recommendations

1. Comprehensive 'routine' care should be provided only from a well-developed and documented treatment plan.
2. The treatment plan should be developed from a thorough, well-documented intra and extra-oral examination, to include a periodontal assessment and detailed examination of all soft tissues.
3. Appropriate bitewing or periapical x-rays should be taken to diagnose caries.
4. Hygiene care should be provided as part of the treatment process.
5. Care should be provided sequentially, beginning with hygiene services and dental prophylaxis.
6. Oral hygiene instructions should be provided and documented as part of the treatment process.

We agree with these recommendations.

Additional Recommendations

7. All inmates should have a comprehensive examination within 30 days of intake. This exam should use the criteria of the American Dental Association Procedure Code D0150 (Comprehensive Oral Evaluation).¹¹⁶
8. Oral prophylaxis and non-surgical procedures such as scaling, and root planing should comport with the definitions set forth in the American Dental Association Procedure Codes.
9. Biennial examinations should be informed by intraoral x-rays, a periodontal assessment that includes a PSR, and a soft tissue examination for oral cancer and use the criteria of Procedure Code D0120 (Periodic Oral Examination).

¹¹⁶ "It is a thorough evaluation and recording of the extraoral and intraoral hard and soft tissues. [...] This includes an evaluation for oral cancer where indicated, the evaluation and recording of the patient's dental and medical history and a general health assessment. It may include the evaluation and recording of dental caries, missing or unerupted teeth, restorations, existing prostheses, occlusal relationships, periodontal conditions (including periodontal screening and/or charting), hard and soft tissue anomalies, etc."

Dental: Intake (Initial) Examination

First Court Expert Recommendations

1. Oral hygiene instructions should be provided at the time of the screening [intake] examination.
2. The area where x-rays are taken should have warning signs posted that clearly warn of potential radiation hazards to pregnant females.
3. Consent form should be developed and used for pregnant females that explains radiation hazards and gives the examiner permission to take the x-ray.

We agree with these recommendations.

Additional Recommendations

4. Dentists should wash their hands or use an alcohol wipe between changing gloves.
5. Disposable infection control barriers should be used on the examination light and be changed between patients (as is done in the dental clinic).
6. The dentist should perform a soft tissue exam for oral cancer that includes holding the anterior portion of the tongue with 2x2 gauze and reflecting the tongue with a mouth mirror to visualize the posterior portion and lateral borders of the tongue.

Dental: Extractions

First Court Expert Recommendations

1. A diagnosis or a reason for the extraction should be included as part of the record entry using the SOAP note format, especially for sick call entries. *This deficiency has been corrected since the EHR used at LCC forces dental providers to use the SOAP format.*

Additional Recommendations: None

Dental: Removable Prosthetics

First Court Expert Recommendations

1. A comprehensive examination and well-developed and documented treatment plan, including bitewing and/or periapical radiographs, should precede all comprehensive dental care, including removable prosthodontics.
2. Periodontal assessment and treatment should be part of the treatment process and that the periodontium should be stable before proceeding with impressions.
3. Oral hygiene instructions should be provided as a precursor to removable prosthodontic impressions.
4. All operative dentistry and oral surgery should be completed before proceeding with impressions.

We agree with these recommendations.

Additional Recommendations: None.

Dental: Sick Call/Treatment Provision

First Court Expert Recommendations

1. Use the SOAP format for sick call entries. It will insure that the inmate's chief complaint is recorded and addressed, and a thorough focused examination and diagnosis precedes all treatment. *The EMR forces dental providers to use the SOAP format; consequently, the recommendation is moot.*
2. Inmate request forms should be retained in the dental record.
3. Provide only immediate or palliative care on sick call appointments. Do not use these appointments for routine care. Provide a dedicated schedule for these inmates.

We agree with these recommendations.

Additional Recommendations

4. The sick call failed appointment rate should be monitored and reported monthly.
5. The reasons for the high failed appointment rate should be studied by the Quality Improvement Committee.

Dental: Orientation Handbook

First Court Expert Recommendations

1. Insure that information about the dental program and how to access dental care is included in the Offender Handbook and Orientation Manual. *We agree with this recommendation.*

Additional Recommendations: None.

Dental: Policies and Procedures

First Court Expert Recommendations

1. The dental program should develop a detailed, accurate policy and procedure manual that defines how all aspects of the program are to be run and managed. Once developed, it should be updated on a regular basis and as needed for new policies and procedures. *We agree with this recommendation.*

Additional Recommendations

2. The "complete" examination should comport with the American Dental Association Code D0150 (Comprehensive Oral Examination – New or Established Patient). Revised policies should incorporate ADA procedure definitions.
3. The initial examination should comprise a complete oral cancer examination that includes an inspection of the lateral border and ventral surface of the tongue.

Dental: Failed Appointments

First Court Expert Recommendations

1. The dental staff should investigate the reasons for failed appointments and then put in place corrective action to lower the rate.
2. A continuing quality improvement study would be a good methodological technique.

We agree with these recommendations.

Additional Recommendations: None.

Dental: Medically Compromised Patients

First Court Expert Recommendations

1. The medical history section of the dental record be kept up to date and that medical conditions that require special precautions be red flagged to catch the immediate attention of the provider.
2. Blood pressure readings should be routinely taken of patients with a history of hypertension, especially prior to any surgical procedure.¹¹⁷

We agree with these recommendations.

Additional Recommendations

3. Diabetic patients should receive thorough periodontal assessments by a dentist annually **as part of the chronic disease program** and those with periodontal disease should have a sequenced treatment plan with six-month follow-ups.

Dental: Specialists

First Court Expert Recommendations

1. Thoroughly document in the dental record all findings and reasons that led to a referral to the specialist required. Provide all information pertinent to the condition being referred. *We agree with this recommendation and note that the dental referral requests we reviewed had all pertinent information.*

Additional Recommendations

2. The dental program should maintain an oral surgery log to include the date of the request for approval, the results of the collegial review (that is, approval or disapproval) the date of the appointment/treatment, the condition to be treated, and any post-surgical complications.

Dental: CQI

First Court Expert Recommendations

1. Evaluate program deficiencies and needs as outlined in this report through ongoing continuous quality improvement studies that address these deficient areas. Develop corrective actions and procedures to improve those areas.

We agree with this recommendation.

Additional Recommendations: None.

Internal Monitoring and Quality Improvement

First Court Expert Recommendations

¹¹⁷ The dental clinic does not have a stethoscope and sphygmomanometer.

1. The staff should be trained in CQI methodology, specifically with regard to how to perform studies, how to identify subthreshold performance, how to analyze the data in order to determine the causes of subthreshold performance, and then how to develop improvement strategies based on the identified causes and finally how to restudy to determine whether the improvement strategy had the required effect.
2. The leadership of the continuous quality improvement program must be retrained regarding quality improvement philosophy and methodology, along with study design and data collection.
3. This training should include how to study outliers in order to develop targeted improvement strategies.

We agree with these recommendations.

Appendix A

Logan Staffing

Position	Budgeted	Filled	Vacant
Health Care Unit Administrator	1	1	0
Medical Director	1	1	0
Director of Nursing	1	1	0
Medical Records Director	1	0	1
Registered Nurse Supervisor	1	1	0
Obstetrician	0.5	0.5	0
Nurse Practitioner/Physician Assistant	4	4	0
Registered Nurse	5	5	0
Licensed Practical Nurse	18	18	0
Medication Room Assistant	3	3	0
Dentist	2	2	0
Dental Assistant	3	3	0
Dental Hygienist	1	1	0
Licensed Physical Therapist	0.25	0.25	0
Certified Mammography Technician	0.4	0.4	0
Optometrist	0.2	0.2	0
Office Coordinator	1	1	0
Staff Assistants	8	8	0
Phlebotomists	1.2	1.2	0
Radiology Technician	0.6	0.6	0
	53.15	52.15	

Appendix B

ILLINOIS DEPARTMENT OF CORRECTIONS Offender Outpatient Progress Note LOGAN CORRECTIONAL CTR Center			
Date: 03/23/2017			
Offender Information		ID#: 14112	
Last Name	First Name	M	MI
Race:	Gender: female	Date of Birth: 03/23/1985	
Dental Note			
Current Vitals: T: 98.4 (Oral) P: 80 (Sitting) R: 16 / min B/P: 114 / 78 (Sitting)			
Height: In. Weight: Lbs.			
Current Vitals Date: 4/19/2016			
Allergies:	NO KNOWN ALLERGIES		
Problems:			
Dental:	Dental Caries First Observed 6/1/2015 08:55AM		
Not Specified:	Well Woman Examination First Observed 10/15/2014 10:23AM		
Medications:			
SUBJECTIVE:			
OBJECTIVE:			
2 Yr. Exam <input checked="" type="checkbox"/>			
Tx. Requested <input type="checkbox"/>			
No Tx. Requested <input checked="" type="checkbox"/>			
ASSESSMENT:			
PLAN:			
EDUCATION:			
CO-PAY:			
<input type="checkbox"/> \$5.00 Co-pay			
Electronically Signed by MCCALL, WILLIE D.D.S. on 03/23/2017. ##And No Others##			
DOC 0084			

Appendix C

ILLINOIS DEPARTMENT OF CORRECTIONS
Dental Hygienist Progress Note
LOGAN CORRECTIONAL CTR Center

Date: 02/27/2017 11:19

Offender Information			
Last Name	First Name	M MI	ID#:
Race:	Gender: female	Date of Birth:	

Current Vitals: T: 98.4 (Oral) P: 80 (Sitting) R: 16 / min B/P: 114 / 78 (Sitting)
Height: 63 in. Weight: 176 Lbs.

Allergies: NO KNOWN ALLERGIES


Problems:

Dental: Dental Caries First Observed 6/1/2015 08:55AM

Not Specified: Well Woman Examination First Observed 10/15/2014 10:23AM

Medications:

SUBJECTIVE:	
<input type="checkbox"/> Patient presents per request slip for prophylaxis	
OBJECTIVE:	
<input checked="" type="checkbox"/> Signed copyay <input type="checkbox"/> Signed consent <input checked="" type="checkbox"/> Inflamed tissue	
<input checked="" type="checkbox"/> Calculus <input type="checkbox"/> Light <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Heavy	<input checked="" type="checkbox"/> Bleeding <input checked="" type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy
<input checked="" type="checkbox"/> Plaque <input checked="" type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy	
ASSESSMENT:	
<input type="checkbox"/> Gingivitis <input checked="" type="checkbox"/> Periodontal disease	
PLAN:	



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